

# Exhibit B

# Supplemental Report on Districting Alternatives, Local Polarization, and Effectiveness

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In response to the Court's May 23, 2022 order, I am supplying additional information relating to the amended complaint of the TX-NAACP. In particular, the Court has asked for additional detail to determine whether demonstrative districts provide effective opportunity to elect for the minority group or coalition (i.e., whether the group can elect candidates of choice); and whether the minority group is cohesive in the demonstrative districts while Anglo bloc voting would defeat their preferences in the enacted districts. The information below is supplementary to my earlier report of May 23, 2022.<sup>1</sup>

In Section 1, I will build a score to give a simple barometer of the historical electoral alignment of a district with the coalition of Black, Hispanic, and Asian voters (and with the constituent subgroups). For the districts, I will report this **historical electoral alignment** score so that, in combination with the **demographics** of the district, the **Biden share** of the major-party vote from the Presidential general election of 2020, and any ancillary information specific to that area, I can offer an assessment of the overall **electoral effectiveness**.

In Section 2, I will present this expanded information for the previously submitted districts as well as for three new supplementary plans. The three new plans are intended to illustrate different possible priorities for the court and should be regarded as supplementing, rather than replacing, the previously submitted plans.

There are three appendices containing detailed racially polarized voting (RPV) output data at different levels of geography. General elections by county cluster were already included in my earlier report of May 23. Point estimates for 2-way runs (coalition vs. other) as well as for 4-way runs (Black vs. Hispanic vs. Asian vs. Other) are presented here for other sets of elections or geographies, as follows:

- Appendix A (primary and runoff RPV by county cluster)
- Appendix B (general election RPV by district)
- Appendix C (primary and runoff RPV by district)

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<sup>1</sup> I earlier filed a report entitled *Race and Redistricting in Texas* on May 20, 2022, then issued a corrected report on May 23. The corrections were minor, dealing with small updates to the boundaries of the demonstrative districts. Below, I will refer to my report of May 23.

# 1 Assessing Electoral Effectiveness

Armed with data specific to particular regions, counties, and even districts in Texas, I have created a score of historical electoral alignment that is tailored to the specific voting patterns of each area of Texas considered in the TX-NAACP claims. The score is built by selecting eight of the statewide general elections and eight primary and runoff elections in which I have the highest confidence that statistical inference methods can identify a coalition candidate of choice. This gives 16 contests in all, so that any district can now be awarded a score from 0-16 showing how often it was the case that the coalition candidate of choice would have advanced from the primary, won the runoff, or won the general election contest, respectively. This is assessed by simply summing up the actual historical cast votes and does not require any further statistical inference. These alignment scores will be reported in the tables in the following section.

**Selected general elections** President 2012 (Obama), Railroad Commissioner 2014 (Brown), Railroad Commissioner 2016 (Yarbrough), Comptroller 2018 (Chevalier), Governor 2018 (Valdez), Railroad Commissioner 2018 (McAllen), Senate 2020 (Hegar), and President 2020 (Biden).

These were chosen with a priority on recency and an emphasis on including elections with a minority-identified candidate on the ballot (including the Biden-Harris ticket).

Adding to those eight generals, I made a regionally-specific choice of primaries, using the *certainty that EI has correctly identified a coalition candidate of choice* as the dominant selection criterion.<sup>2</sup>

## 1.1 Selecting clear primary and runoff elections

As noted in my earlier report (Section 6.1.2 of May 23 report), the low turnout and the large number of candidates in primary elections combine to make them more difficult targets for inference techniques. Though there are 25 statewide primaries and runoffs in my dataset for the period 2012–2020, many of them give uncertain results. As discussed on p.26 of that report, I do not find the uncertainty to indicate a lack of cohesion, but rather adverse conditions for inference methods at the regional and local level. Importantly, this is because low turnout and indications of sizeable participation gaps make it difficult to be certain of the racial composition of the electorate in a given election.<sup>3</sup>

As described earlier (p.27 of May 23 report), one useful measure of confidence in the correct identification of a group's candidate of choice is to draw repeatedly from the probability distribution learned by ecological inference and to record whether the draws consistently identify the same candidate as the leading vote-getter. If thousands of draws all report the same leader, it should boost our conviction that the finding is reliable. I will illustrate this confidence measure with one example from Tarrant/Dallas and one from Harris/Fort Bend.

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<sup>2</sup>It is generally a good data practice to confirm that your methods are not unduly sensitive to small or arbitrary choices. To test the robustness of this approach, I built several alternative subsets of general and primary/runoff elections to select in the building of an effectiveness score. I detected no material differences in the findings, which led me to conclude that this approach (of using high-confidence candidates of choice to build a numerical indicator of electoral alignment) is sound.

<sup>3</sup>Other experts use techniques like surname geocoding to produce an estimated breakdown of election day voters by race/ethnicity. However, it is important to note that, unlike in states where race/ethnicity is an explicit field on a voter registration form, the voter file alone does not provide a demographic breakdown in Texas. Therefore Bayesian Improved Surname Geocoding (BISG) and similar analyses still rely on probabilistic techniques. Nevertheless, when BISG methods gives consonant answers to techniques that use Census demographics as primary inputs, I regard these to be complementary and mutually reinforcing approaches.

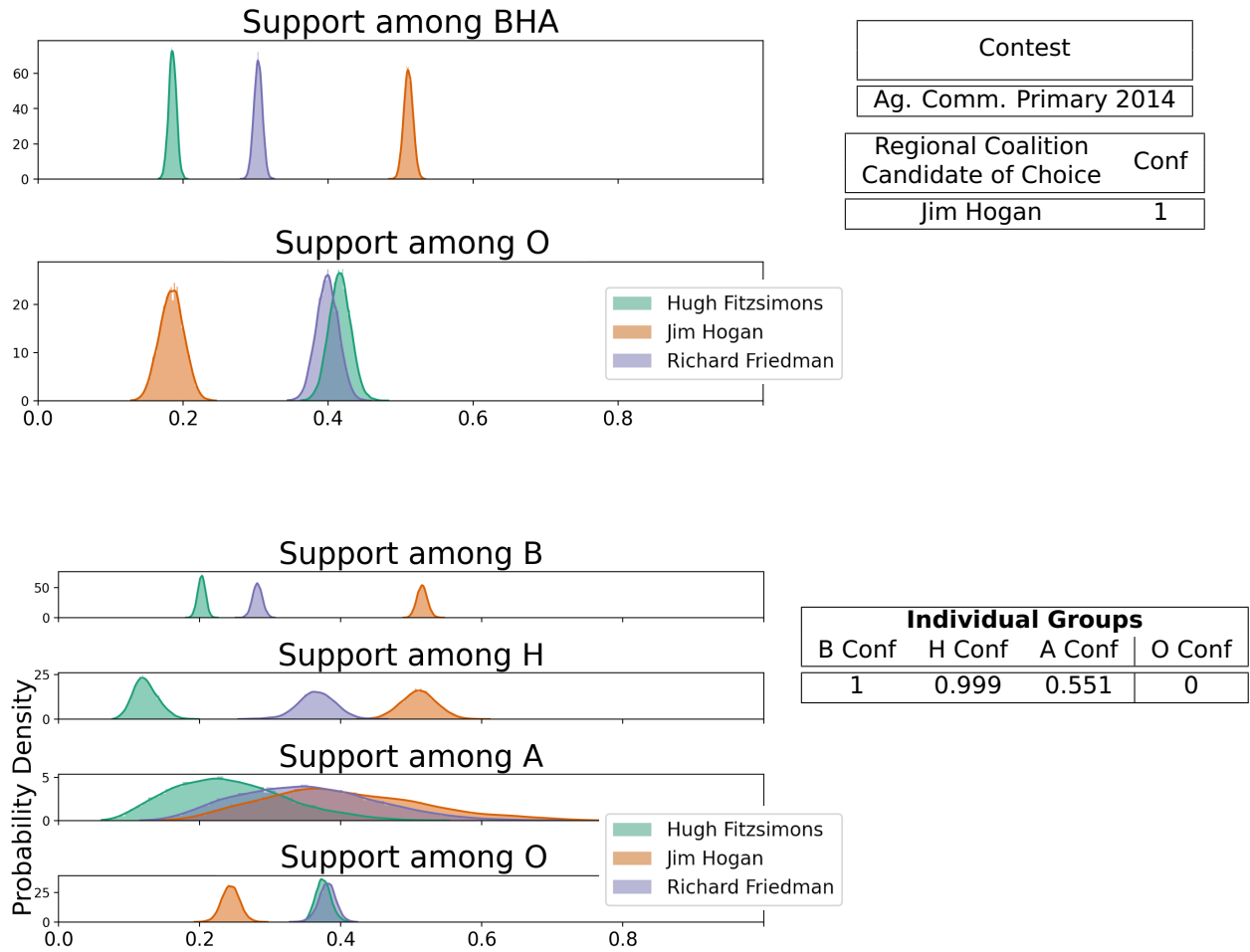
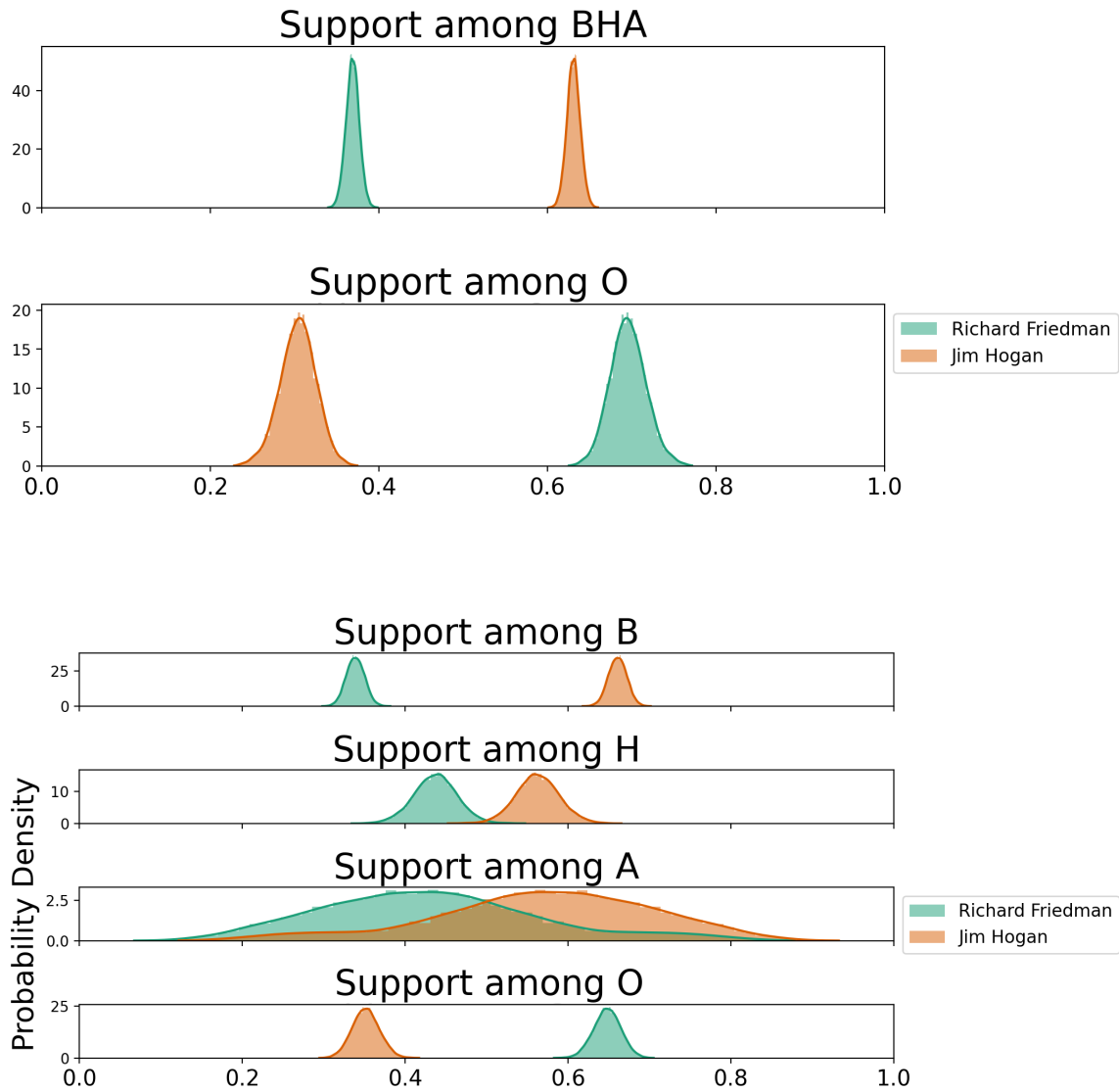


Figure 1: This example shows the findings of an ecological inference (EI) run on the Agriculture Commissioner Democratic Primary election from 2014 in Harris/Fort Bend. EI produces estimates of support by each group for each candidate, shown as colored distribution curves; a narrow curve indicates a higher degree of certainty while wider curves indicate less certainty. The lower plot (B vs. H vs. A vs. O) was run with the racial/ethnic groups individually. To achieve a confidence score (denoted **Conf** in the tables below), a value is drawn from each probability distribution (bell curve). In 100% of random draws, the Hogan value is the greatest of the three candidate support values among Black voters (B Conf= 1)—this corresponds to the picture, where the orange bell curve is far above the others. In 99.9% of draws, the same is true for Hispanic voters (H Conf= .999)—accordingly, in that plot, the orange bell curve barely overlaps the purple. For Asian voters, Hogan gets the most leading draws, with 55.1% (A Conf= .551). For Other (mostly White) voters, Hogan leads 0% of draws (O Conf= 0). The upper plots (BHA vs. O) illustrate the same phenomenon when Black–Hispanic–Asian voters are combined as a coalition, showing that Hogan always leads the combined group’s draw—which explains the overall finding that, for the coalition, Conf= 1. The table data is excerpted from Table 3.



Contest	Regional Coalition Candidate of Choice	Conf	Individual Groups			
			B Conf	H Conf	A Conf	O Conf
Ag. Comm. Runoff 2014	Jim Hogan	1	1	1	0.491	0

Figure 2: This example is similar to the previous, this time for the runoff in the same Agriculture Commissioner contest, and for the Tarrant/Dallas county cluster. Compare to the tabular data, which is excerpted from Table 1

The following tables show the results of ecological inference in all regions of the state covered by the Section 2 claims of the TX-NAACP. Though the same 25 primary and runoff elections were run in all regions, only the ones in which the run completed with clean computational diagnostics are reported here.<sup>4</sup> RPV results winnowed to the district level may be found in the appendices; however, I place a high importance on these outputs from the county level, both because of the clear historical and legal significance of counties in Texas and because EI gives far more accurate results on larger geographies.

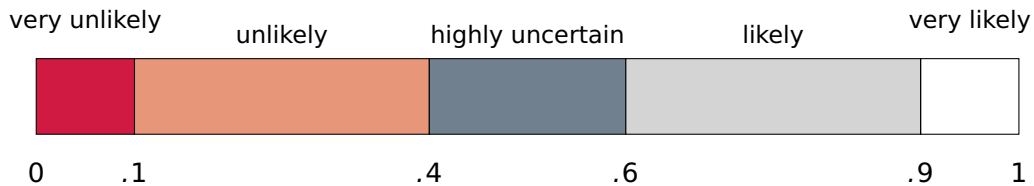


Figure 3: Shading scheme for confidence score in primary/runoff tables. Each cell should be read as reporting how certain we can be that the indicated group prefers the listed candidate.

I assess the primaries shown below to give good collective evidence of cohesion among the proposed coalition of Black, Latino, and Asian voters—with the understanding that elections with two reasonably strong minority candidates from different subgroups are the ones most likely to show a divergence in preferences. I note that though the Other (mostly White) Democrats generally show high levels of agreement with the coalition minority groups in primaries in Denton-Wise, Lubbock, and Brazoria, this is unrelated to a Gingles 3 analysis. In particular, Black-Hispanic-Asian coalition voters are cohesive in primaries and highly cohesive in general elections, but their preferences are consistently blocked by the White majority in general elections.

**Tarrant/Dallas** Gov14 Primary (Davis), AgComm14 Primary (Hogan), AgComm14 Runoff (Hogan), RRComm14 Primary (Brown), RRComm16 Runoff (Yarbrough), LtGov18 Primary (Cooper), Comp18 Primary (Mahoney), Sen20 Primary (West).

**Harris/Fort Bend** Sen12 Primary (Yarbrough), Gov14 Primary (Davis), Sen14 Runoff (Alameel), AgComm14 Primary (Hogan), AgComm14 Runoff (Hogan), RRComm16 Runoff (Yarbrough), LtGov18 Primary (Cooper), RRComm20 Runoff (Alonzo)

**Denton/Wise** Sen12 Runoff (Sadler), Gov14 Primary (Davis), Sen14 Runoff (Alameel), Gov18 Primary (Valdez), LandComm18 Primary (Suazo), Pres20 Primary (Sanders), Sen20 Primary (West), Sen20 Runoff (West)

**Lubbock** Sen12 Runoff (Sadler), Gov14 Primary (Davis), RRComm14 Primary (Brown), Pres16 (Clinton), RRComm16 Runoff (Yarbrough), Gov18 Runoff (Valdez), LandComm18 Primary (Suazo), RRComm18 Primary (McAllen)

**Brazoria** Sen12 Runoff (Sadler), Gov14 Primary (Davis), Sen14 Runoff (Alameel), AgComm14 Runoff (Hogan), RRComm14 Primary (Brown), Pres16 Primary (Clinton), Gov18 Runoff (White), LandComm18 Primary (Suazo)

<sup>4</sup>Ecological inference is a computationally demanding inference procedure, especially with four racial groups, as many as four candidates, and many precincts. No successfully completed outputs are omitted.

## 1.2 Detailed primary and runoff data

Contest	Regional Coalition Candidate of Choice	Conf	Individual Groups			
			B Conf	H Conf	A Conf	O Conf
U.S. Senate Runoff 2012	Paul Sadler	1	0.676	1	0.468	1
Ag. Comm. Primary 2014	Jim Hogan	1	1	0.878	0.624	0
Ag. Comm. Runoff 2014	Jim Hogan	1	1	0.991	0.725	0
Governor Primary 2014	Wendy Davis	1	1	1	1	1
RR Comm. Primary 2014	Steve Brown	1	1	0.986	0.627	1
U.S. Senate Primary 2014	David Alameel	1	0.991	1	0.002	1
U.S. Senate Runoff 2014	David Alameel	1	1	1	0.981	1
President Primary 2016	Hillary Clinton	1	1	1	0.028	1
RR Comm. Primary 2016	Grady Yarbrough	1	1	0.015	0.072	0
RR Comm. Runoff 2016	Grady Yarbrough	1	1	0.978	0.412	1
Comptroller Primary 2018	Tim Mahoney	1	1	0.998	0.136	0
Governor Runoff 2018	Lupe Valdez	1	1	1	0.256	1
Land Comm. Primary 2018	Miguel Suazo	1	1	1	0.835	1
Lt. Governor Primary 2018	Michael Cooper	1	1	1	0.993	0
RR Comm. Primary 2018	Chris Spellmon	1	1	0.002	0.338	0
U.S. Senate Primary 2018	Sema Hernandez	1	0	1	0.950	0
RR Comm. Runoff 2020	Roberto Alonzo	0.969	0.397	1	0.653	0
U.S. Senate Runoff 2020	Royce West	1	1	0.378	0.270	0

Table 1: **Tarrant-Dallas Primaries and Runoffs.** The candidate of choice for the combined Black-Hispanic-Asian population is reported in the second column, using data specific to this region. The confidence score in that choice is reported next, followed by the confidence that each individual group shares that preference.

Contest	Regional Coalition Candidate of Choice	Conf	Individual Groups			
			B Conf	H Conf	A Conf	O Conf
Governor Primary 2014	Wendy Davis	1	1	1	1	1
Ag. Comm. Primary 2014	Jim Hogan	1	1	0.878	0.624	0
Ag. Comm. Runoff 2014	Jim Hogan	1	1	0.991	0.725	0
RR Comm. Primary 2014	Steve Brown	1	1	0.986	0.627	1
RR Comm. Runoff 2016	Grady Yarbrough	1	1	0.978	0.412	1
Lt. Governor Primary 2018	Michael Cooper	1	1	1	0.993	0
Comptroller Primary 2018	Tim Mahoney	1	1	0.998	0.136	0
U.S. Senate Runoff 2020	Royce West	1	1	0.378	0.270	0

Table 2: **Tarrant-Dallas Selected Contests.**

Contest	Regional Coalition Candidate of Choice	Conf	Individual Groups			
			B Conf	H Conf	A Conf	O Conf
U.S. Senate Primary 2012	Grady Yarbrough	1	1	0.863	0.006	0
U.S. Senate Runoff 2012	Grady Yarbrough	0.972	1	0	0.060	0
Ag. Comm. Primary 2014	Jim Hogan	1	1	0.999	0.551	0
Ag. Comm. Runoff 2014	Jim Hogan	1	1	1	0.491	0
Governor Primary 2014	Wendy Davis	1	1	1	1	1
RR Comm. Primary 2014	Steve Brown	1	1	0.725	0.939	1
U.S. Senate Primary 2014	David Alameel	1	1	1	0.012	1
U.S. Senate Runoff 2014	David Alameel	1	1	1	0.956	1
President Primary 2016	Hillary Clinton	1	1	1	0.921	1
RR Comm. Primary 2016	Grady Yarbrough	1	1	0	0	0
RR Comm. Runoff 2016	Grady Yarbrough	1	1	1	0.569	0
Comptroller Primary 2018	Tim Mahoney	1	0.033	1	0.898	0
Governor Runoff 2018	Andrew White	1	1	0	0.388	1
Land Comm. Primary 2018	Miguel Suazo	1	1	1	1	1
Lt. Governor Primary 2018	Michael Cooper	1	1	1	1	0
RR Comm. Primary 2018	Chris Spellmon	0.525	1	0	0.200	0
U.S. Senate Primary 2018	Sema Hernandez	0.792	0	1	0.484	0
President Primary 2020	Joe Biden	1	1	0	0.012	1
RR Comm. Runoff 2020	Roberto Alonzo	1	0.999	1	0.024	0
U.S. Senate Runoff 2020	Royce West	1	1	0	0.182	0

Table 3: **Harris-Fort Bend Primaries and Runoffs.** The candidate of choice for the combined Black-Hispanic-Asian population is reported in the second column, using data specific to this region. The confidence score in that choice is reported next, followed by the confidence that each individual group shares that preference.

Contest	Regional Coalition Candidate of Choice	Conf	Individual Groups			
			B Conf	H Conf	A Conf	O Conf
U.S. Senate Primary 2012	Grady Yarbrough	1	1	0.863	0.006	0
Governor Primary 2014	Wendy Davis	1	1	1	1	1
U.S. Senate Runoff 2014	David Alameel	1	1	1	0.956	1
Ag. Comm. Primary 2014	Jim Hogan	1	1	0.999	0.551	0
Ag. Comm. Runoff 2014	Jim Hogan	1	1	1	0.491	0
RR Comm. Runoff 2016	Grady Yarbrough	1	1	1	0.569	0
Lt. Governor Primary 2018	Michael Cooper	1	1	1	1	0
RR Comm. Runoff 2020	Roberto Alonzo	1	0.999	1	0.024	0

Table 4: **Harris-Fort Bend Selected Contests.**

Contest	Regional Coalition Candidate of Choice	Conf	Individual Groups			
			B Conf	H Conf	A Conf	O Conf
U.S. Senate Primary 2012	Paul Sadler	0.721	0.337	0.879	0.896	1
U.S. Senate Runoff 2012	Paul Sadler	1	0.824	1	0.848	1
Ag. Comm. Primary 2014	Richard Friedman	0.554	0.319	0.900	0.172	0.048
Ag. Comm. Runoff 2014	Richard Friedman	1	0.558	0.996	0.918	0.549
Governor Primary 2014	Wendy Davis	1	1	1	1	1
RR Comm. Primary 2014	Steve Brown	0.989	0.912	0.935	0.938	1
U.S. Senate Primary 2014	Kesha Rogers	0.748	0.601	0.098	0.442	0
U.S. Senate Runoff 2014	David Alameel	1	0.954	1	0.939	1
President Primary 2016	Bernie Sanders	0.508	0.777	0.917	0	0.140
RR Comm. Primary 2016	Cody Garrett	0.714	0.327	0.605	0.680	0.208
RR Comm. Runoff 2016	Grady Yarbrough	0.772	0.527	0.793	0.229	0.192
Comptroller Primary 2018	Joi Chevalier	0.999	0.989	0.502	0.983	1
Governor Runoff 2018	Lupe Valdez	0.906	0.816	0.933	0.639	0.793
Land Comm. Primary 2018	Miguel Suazo	1	0.992	0.775	0.998	1
Lt. Governor Primary 2018	Michael Cooper	0.535	0.460	0.674	0.179	0
RR Comm. Primary 2018	Roman McAllen	0.972	0.908	0.468	0.871	0.991
U.S. Senate Primary 2018	Beto O'Rourke	0.939	0.932	0.354	0.995	1
President Primary 2020	Bernie Sanders	0.999	0.997	0.995	0	0.001
RR Comm. Runoff 2020	Chrysta Castaneda	1	0.907	0.459	1	1
U.S. Senate Primary 2020	Royce West	1	0.903	0.016	0.884	0
U.S. Senate Runoff 2020	Royce West	0.996	0.986	0.146	0.986	0

Table 5: **Denton-Wise Primaries and Runoffs.** The candidate of choice for the combined Black-Hispanic-Asian population is reported in the second column, using data specific to this region. The confidence score in that choice is reported next, followed by the confidence that each individual group shares that preference.

Contest	Regional Coalition Candidate of Choice	Conf	Individual Groups			
			B Conf	H Conf	A Conf	O Conf
U.S. Senate Runoff 2012	Paul Sadler	1	0.824	1	0.848	1
Governor Primary 2014	Wendy Davis	1	1	1	1	1
U.S. Senate Runoff 2014	David Alameel	1	0.954	1	0.939	1
Governor Runoff 2018	Lupe Valdez	0.906	0.816	0.933	0.639	0.793
Land Comm. Primary 2018	Miguel Suazo	1	0.992	0.775	0.998	1
President Primary 2020	Bernie Sanders	0.999	0.997	0.995	0	0.001
U.S. Senate Primary 2020	Royce West	1	0.903	0.016	0.884	0
U.S. Senate Runoff 2020	Royce West	0.996	0.986	0.146	0.986	0

Table 6: **Denton-Wise Selected Contests.**

Contest	Regional Coalition Candidate of Choice	Conf	Individual Groups			
			B Conf	H Conf	A Conf	O Conf
U.S. Senate Primary 2012	Paul Sadler	0.811	0.373	0.799	0.626	0.980
U.S. Senate Runoff 2012	Paul Sadler	1	0.746	0.994	0.880	0.858
Ag. Comm. Primary 2014	Jim Hogan	0.797	0.568	0.731	0.406	0.359
Ag. Comm. Runoff 2014	Jim Hogan	0.945	0.464	0.759	0.750	0.162
Governor Primary 2014	Wendy Davis	1	1	0.993	0.992	1
RR Comm. Primary 2014	Steve Brown	0.974	0.738	0.875	0.699	0.676
U.S. Senate Primary 2014	Maxey Scherr	0.917	0.601	0.691	0.531	0.776
U.S. Senate Runoff 2014	David Alameel	0.990	0.495	0.915	0.429	0.867
President Primary 2016	Hillary Clinton	1	0.959	0.995	0.069	0.507
RR Comm. Primary 2016	Cody Garrett	0.851	0.529	0.807	0.505	0.808
RR Comm. Runoff 2016	Grady Yarbrough	0.994	0.901	0.760	0.331	0.624
Comptroller Primary 2018	Tim Mahoney	0.688	0.648	0.606	0.184	0.128
Governor Runoff 2018	Lupe Valdez	0.998	0.663	0.956	0.456	0.238
Land Comm. Primary 2018	Miguel Suazo	1	0.877	0.997	0.618	0.977
Lt. Governor Primary 2018	Mike Collier	0.595	0.365	0.721	0.630	1
RR Comm. Primary 2018	Roman McAllen	0.950	0.694	0.888	0.123	0.190
U.S. Senate Primary 2018	Sema Hernandez	0.511	0.275	0.573	0.041	0
President Primary 2020	Bernie Sanders	0.696	0.422	0.712	0.636	0.280
RR Comm. Runoff 2020	Chrysta Castaneda	0.741	0.519	0.731	0.680	1
U.S. Senate Primary 2020	Annie Garcia	0.985	0.385	0.893	0.191	0.047
U.S. Senate Runoff 2020	Royce West	0.598	0.916	0.176	0.461	0.002

Table 7: **Lubbock County Primaries and Runoffs.** The candidate of choice for the combined Black-Hispanic-Asian population is reported in the second column, using data specific to this region. The confidence score in that choice is reported next, followed by the confidence that each individual group shares that preference.

Contest	Regional Coalition Candidate of Choice	Conf	Individual Groups			
			B Conf	H Conf	A Conf	O Conf
U.S. Senate Runoff 2012	Paul Sadler	1	0.746	0.994	0.880	0.858
Governor Primary 2014	Wendy Davis	1	1	0.993	0.992	1
RR Comm. Primary 2014	Steve Brown	0.974	0.738	0.875	0.699	0.676
President Primary 2016	Hillary Clinton	1	0.959	0.995	0.069	0.507
RR Comm. Runoff 2016	Grady Yarbrough	0.994	0.901	0.760	0.331	0.624
Governor Runoff 2018	Lupe Valdez	0.998	0.663	0.956	0.456	0.238
Land Comm. Primary 2018	Miguel Suazo	1	0.877	0.997	0.618	0.977
RR Comm. Primary 2018	Roman McAllen	0.950	0.694	0.888	0.123	0.190

Table 8: **Lubbock County Selected Contests.**

Contest	Regional Coalition Candidate of Choice	Conf	Individual Groups			
			B Conf	H Conf	A Conf	O Conf
U.S. Senate Primary 2012	Paul Sadler	0.972	0.461	0.900	0.688	0.895
U.S. Senate Runoff 2012	Paul Sadler	1	0.917	1	0.925	0.849
Ag. Comm. Primary 2014	Jim Hogan	0.985	0.791	0.507	0.606	0.516
Ag. Comm. Runoff 2014	Jim Hogan	1	0.877	0.948	0.918	0.631
Governor Primary 2014	Wendy Davis	1	0.999	1	1	1
RR Comm. Primary 2014	Steve Brown	1	0.939	0.945	0.960	0.918
U.S. Senate Primary 2014	David Alameel	0.999	0.450	0.990	0.378	0.885
U.S. Senate Runoff 2014	David Alameel	1	0.892	1	0.997	0.856
President Primary 2016	Hillary Clinton	1	0.996	0.831	1	0.999
RR Comm. Primary 2016	Grady Yarbrough	0.982	0.732	0.652	0.929	0.668
RR Comm. Runoff 2016	Cody Garrett	0.754	0.361	0.645	0.623	0.615
Comptroller Primary 2018	Joi Chevalier	0.973	0.789	0.212	0.987	0.411
Governor Runoff 2018	Andrew White	1	0.949	0.870	0.994	0.918
Land Comm. Primary 2018	Miguel Suazo	1	0.997	0.805	0.999	0.967
Lt. Governor Primary 2018	Michael Cooper	0.786	0.874	0.236	0.727	0.394
RR Comm. Primary 2018	Roman McAllen	0.781	0.612	0.697	0.504	0.615
U.S. Senate Primary 2018	Beto O'Rourke	0.940	0.146	0.644	0.993	0.981
President Primary 2020	Joe Biden	0.994	0.999	0.132	0.981	0.972
RR Comm. Runoff 2020	Chrysta Castaneda	0.924	0.437	0.776	0.906	0.906
U.S. Senate Primary 2020	Cristina Ramirez	0.405	0.008	0.777	0.031	0.152
U.S. Senate Runoff 2020	Royce West	0.987	0.999	0.043	0.910	0.346

Table 9: **Brazoria County Primaries and Runoffs.** The candidate of choice for the combined Black-Hispanic-Asian population is reported in the second column, using data specific to this region. The confidence score in that choice is reported next, followed by the confidence that each individual group shares that preference.

Contest	Regional Coalition Candidate of Choice	Conf	Individual Groups			
			B Conf	H Conf	A Conf	O Conf
U.S. Senate Runoff 2012	Paul Sadler	1	0.917	1	0.925	0.849
Governor Primary 2014	Wendy Davis	1	0.999	1	1	1
U.S. Senate Runoff 2014	David Alameel	1	0.892	1	0.997	0.856
Ag. Comm. Runoff 2014	Jim Hogan	1	0.877	0.948	0.918	0.631
RR Comm. Primary 2014	Steve Brown	1	0.939	0.945	0.960	0.918
President Primary 2016	Hillary Clinton	1	0.996	0.831	1	0.999
Governor Runoff 2018	Andrew White	1	0.949	0.870	0.994	0.918
Land Comm. Primary 2018	Miguel Suazo	1	0.997	0.805	0.999	0.967

Table 10: **Brazoria County Selected Contests.**

## 2 Expanded Data on Demonstrative Plans

In this section, I will give additional information for each of the eight previously submitted plans and will introduce three new supplemental plans. The supplemental plans are a new Congressional plan for Harris/Fort Bend; a new Senate plan for Harris/Fort Bend; and a new House plan for Lubbock. They are intended to illustrate ways of prioritizing different goals, such as increased electoral effectiveness—including from indications that go beyond the historical alignment score alone—or higher Latino population levels in areas of traditional Latino voting strength.

As emphasized in the earlier report, these are intended as Gingles 1 demonstratives only, with the understanding that the court is likely to fold in many other considerations at any possible remedial proceeding in the future.

In the tables below, the yellow shading is used to indicate a district that is majority-minority by CVAP. The dark blue shading is used to indicate a district with an effectiveness score of at least 12 out of 16—a score of at least 12 ensures that at least half of the eight primary/runoffs and at least half of the eight generals aligned with the candidate of choice. And finally, purple shading indicates districts where the Biden share of the major-party vote was at least 45% in the 2020 Presidential election, indicating that coalition candidates of choice are (at least recently) competitive in general elections.

### 2.1 C1 (Tarrant/Dallas)

	C2193							Alternative plan (previously submitted)						
CD	Black CVAP	Hisp CVAP	AAPI CVAP	BHA CVAP	Elect. Align.	Biden Share	Polsby Popper	Black CVAP	Hisp CVAP	AAPI CVAP	BHA CVAP	Elect. Align.	Biden Share	Polsby Popper
6	15.37%	21.28%	2.98%	39.64%	6	37.87%	0.154	11.01%	15.51%	1.55%	28.06%	7	29.03%	0.18
12	10.71%	17.62%	3.36%	31.69%	3	40.83%	0.208	20.64%	40.02%	5.23%	65.89%	15	68.33%	0.371
24	7.05%	11.83%	6.61%	25.49%	3	43.73%	0.114	9.26%	11.85%	7.44%	28.55%	4	49.56%	0.154
25	11.68%	15.15%	2.84%	29.67%	5	34.16%	0.259	4.82%	12.43%	2.63%	19.88%	5	29.22%	0.333
30	48.81%	21.31%	3.48%	73.59%	15	78.72%	0.197	52.78%	18.04%	4.16%	74.98%	16	76.08%	0.189
32	23.83%	21.10%	7.18%	52.10%	13	66.76%	0.077	24.22%	24.00%	6.25%	54.48%	12	66.83%	0.113
33	26.82%	43.19%	4.72%	74.73%	15	75.30%	0.038	21.21%	29.35%	4.20%	54.76%	16	58.62%	0.083
Avg							0.149							0.203

Table 11: Extended statistics on the enacted and alternative districts. Electoral alignment (out of 16) is based on eight general and eight primary/runoff contests, as described in §1.

**Comments.** The alternative plan (C1-ALT) makes CD 30 majority-Black by CVAP, and adds a new majority-coalition district, which is seen to be highly effective for voters of color. This can be seen by its near-perfect alignment with coalition-preferred candidates in historical elections (8 out of 8 generals and 7 out of 8 primary/runoff contests) in addition to its comfortable demographic majority status. With 40% Latino voters by CVAP and around 20% Black voters, this district is likely to be strong for Latino voters especially, in the relatively rare case that Black and Hispanic voters have different preferences in primary elections.

## 2.2 C2 (Harris/Fort Bend)

CD	C2193							Alternative plan (previously submitted)						
	Black CVAP	Hisp CVAP	AAPI CVAP	BHA CVAP	Elect. Align.	Biden Share	Polsby Popper	Black CVAP	Hisp CVAP	AAPI CVAP	BHA CVAP	Elect. Align.	Biden Share	Polsby Popper
2	11.50%	20.05%	3.53%	35.09%	5	38.46%	0.228	27.07%	27.54%	2.22%	56.83%	8	50.33%	0.248
7	20.39%	21.15%	18.66%	60.21%	9	65.07%	0.092	13.64%	21.35%	9.49%	44.47%	4	49.14%	0.121
9	47.22%	24.76%	8.49%	80.46%	14	77.01%	0.164	51.13%	21.91%	8.35%	81.39%	15	78.98%	0.206
14	17.17%	17.78%	2.50%	37.44%	5	35.54%	0.161	17.48%	17.79%	3.15%	38.42%	7	37.07%	0.157
18	40.71%	29.05%	5.32%	75.08%	14	74.61%	0.068	28.68%	29.71%	6.59%	64.98%	14	59.32%	0.192
22	11.71%	23.74%	10.65%	46.09%	4	41.86%	0.164	17.61%	24.26%	18.13%	59.99%	7	49.44%	0.306
29	17.95%	64.65%	3.02%	85.62%	14	68.58%	0.092	9.35%	52.88%	4.63%	66.86%	14	67.69%	0.122
38	10.38%	18.62%	8.62%	37.62%	2	40.81%	0.125	10.22%	19.55%	7.83%	37.61%	4	40.17%	0.121
Avg							0.137							0.184
CD	C2193							Alternative plan (new supplemental)						
	Black CVAP	Hisp CVAP	AAPI CVAP	BHA CVAP	Elect. Align.	Biden Share	Polsby Popper	Black CVAP	Hisp CVAP	AAPI CVAP	BHA CVAP	Elect. Align.	Biden Share	Polsby Popper
2	11.50%	20.05%	3.53%	35.09%	5	38.46%	0.228	12.06%	19.23%	3.66%	34.95%	7	38.31%	0.285
7	20.39%	21.15%	18.66%	60.21%	9	65.07%	0.092	18.59%	20.62%	13.67%	52.88%	6	52.19%	0.187
9	47.22%	24.76%	8.49%	80.46%	14	77.01%	0.164	40.60%	23.69%	8.47%	72.75%	14	75.81%	0.283
14	17.17%	17.78%	2.50%	37.44%	5	35.54%	0.161	17.50%	17.76%	3.15%	38.40%	7	36.98%	0.153
18	40.71%	29.05%	5.32%	75.08%	14	74.61%	0.068	40.16%	27.99%	4.99%	73.15%	15	76.16%	0.131
22	11.71%	23.74%	10.65%	46.09%	4	41.86%	0.164	18.29%	22.58%	14.63%	55.51%	7	49.44%	0.338
29	17.95%	64.65%	3.02%	85.62%	14	68.58%	0.092	17.11%	64.34%	2.49%	83.93%	15	66.47%	0.115
38	10.38%	18.62%	8.62%	37.62%	2	40.81%	0.125	12.11%	23.38%	9.15%	44.64%	4	43.20%	0.239
Avg							0.137							0.216

Table 12: Extended statistics on the enacted and alternative districts. Data for the enacted plan is repeated on the left side of the tables to facilitate comparison.

**Comments.** The previously submitted plan (C2-ALT) adds an additional majority-coalition district, raising the total number of such districts from four to five out of eight in the cluster. It maintains a majority-HCVAP district and creates a new majority-BCVAP district. Though at first glance the switch to this alternative plan seems to create a marginally effective district, the new CD 2 (alignment score 8/16) is in fact more promising for minority electoral opportunity than the enacted plan's CD 7 (alignment score 9/16). This is because the state's CD 7 aligns with the minority coalition in all eight general elections—that is to say, it votes reliably Democratic—but in only one out of eight primary/runoff elections. By contrast, the alternative plan's eight alignment points for CD 2 are earned in one general (the Biden race) and seven out of eight primary/runoff contests. Likewise, CD 22 has not yet produced a Democratic win but performs in seven out of eight primary/runoff contests. These are districts that are currently competitive in statewide general elections and should reliably nominate a candidate of choice for minority voters.

The new supplemental plan (C2-ALT-B) depicts an alternative balancing of priorities; it shows, as the current Congressional Black delegation from Texas has argued, that CD 9 and CD 18 do not need to be entirely dismantled from their benchmark configuration in order to achieve a promising Gingles 1 demonstrative plan. Similarly to C2-ALT, the districts CD 7 and CD 22 are already historically aligned with coalition preferences in most of the selected primaries and runoffs, and their Biden shares show that they are competitive for Democrats in statewide general elections. This plan is also significantly more compact overall.

The terrain covered by CD 9 and CD 18 from the ten-year-old plan has had population shifts and ideal district size has changed since then; nevertheless, these two historical districts happen to hold close to the new ideal population. Small changes to tune the population allow the configuration shown here, keeping over 75% agreement in coverage area between each old district and its new counterpart. This consonance with the popular historical configurations of CD 9 and CD 18 preserves their urban cores and gives due weight to their important communities of interest.

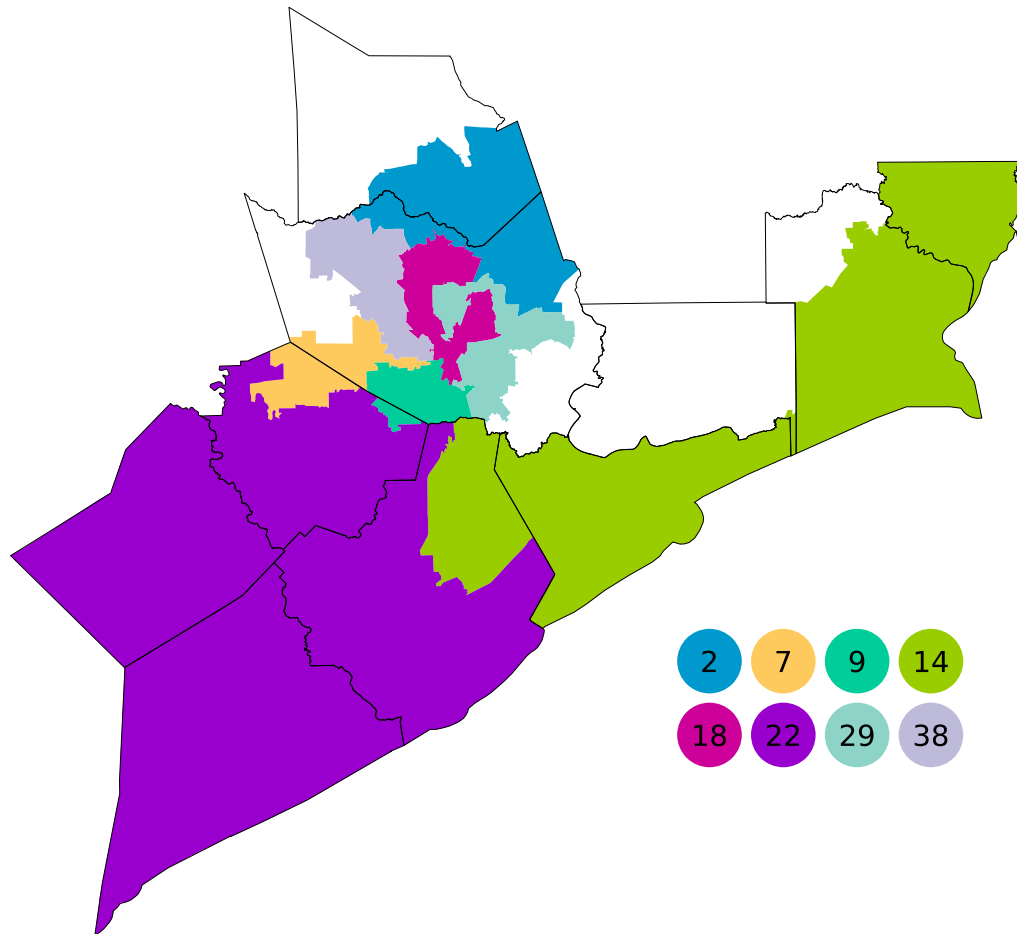


Figure 4: A new alternative to the enacted Congressional plan, designed with CD 9 and CD 18 that closely resemble the benchmark plan from the previous Census cycle.

## 2.3 S1 (Tarrant/Dallas)

	S2168							Alternative plan (previously submitted)						
SD	Black CVAP	Hisp CVAP	AAPI CVAP	BHA CVAP	Elect. Align.	Biden Share	Polsby Popper	Black CVAP	Hisp CVAP	AAPI CVAP	BHA CVAP	Elect. Align.	Biden Share	Polsby Popper
9	9.75%	20.54%	4.71%	35.00%	3	43.32%	0.206	8.35%	14.43%	4.69%	27.46%	6	39.89%	0.139
10	17.13%	18.55%	2.42%	38.10%	6	41.98%	0.152	23.31%	26.28%	6.54%	56.13%	15	61.24%	0.082
12	9.16%	13.64%	7.61%	30.41%	3	43.96%	0.222	14.04%	13.51%	7.78%	35.32%	5	50.58%	0.162
16	20.71%	30.15%	4.78%	55.64%	13	65.37%	0.086	16.65%	37.77%	3.64%	58.06%	12	66.66%	0.093
22	15.49%	17.45%	3.46%	36.39%	6	38.87%	0.228	8.21%	15.29%	1.00%	24.50%	7	25.70%	0.291
23	45.46%	24.69%	3.31%	73.47%	14	78.55%	0.192	51.83%	21.04%	3.46%	76.33%	16	78.43%	0.109
30	9.13%	12.27%	4.95%	26.34%	2	38.19%	0.14	8.43%	11.86%	4.41%	24.71%	4	35.85%	0.244
Avg							0.175							0.160

Table 13: Extended statistics on the enacted and alternative districts.

**Comments.** The previously submitted plan (S1-ALT) creates a new majority-Black district and an entirely new majority-coalition district that is extremely well aligned with historical voting preferences of the Black-Hispanic-Asian coalition.

## 2.4 S2 (Harris/Fort Bend)

	S2168							Alternative plan (previously submitted)						
SD	Black CVAP	Hisp CVAP	AAPI CVAP	BHA CVAP	Elect. Align.	Biden Share	Polsby Popper	Black CVAP	Hisp CVAP	AAPI CVAP	BHA CVAP	Elect. Align.	Biden Share	Polsby Popper
6	18.66%	60.40%	2.89%	81.96%	14	66.90%	0.07	20.06%	57.17%	2.68%	79.91%	15	64.11%	0.089
13	50.01%	23.09%	9.11%	82.22%	14	79.00%	0.12	51.50%	25.06%	4.72%	81.28%	15	80.67%	0.142
15	24.01%	27.61%	7.66%	59.28%	12	65.87%	0.072	16.17%	27.33%	9.84%	53.34%	11	62.34%	0.218
17	12.47%	21.34%	9.15%	42.96%	2	41.24%	0.125	17.24%	24.47%	15.58%	57.29%	7	48.16%	0.319
18	14.88%	24.92%	9.74%	49.55%	6	40.04%	0.107	13.42%	23.31%	5.82%	42.55%	6	34.94%	0.205
Avg							0.099							0.195

	S2168							Alternative plan (new supplemental)						
SD	Black CVAP	Hisp CVAP	AAPI CVAP	BHA CVAP	Elect. Align.	Biden Share	Polsby Popper	Black CVAP	Hisp CVAP	AAPI CVAP	BHA CVAP	Elect. Align.	Biden Share	Polsby Popper
6	18.66%	60.40%	2.89%	81.96%	14	66.90%	0.07	25.11%	52.82%	2.57%	80.50%	16	66.85%	0.144
13	50.01%	23.09%	9.11%	82.22%	14	79.00%	0.12	40.34%	23.71%	7.11%	71.16%	14	75.73%	0.259
15	24.01%	27.61%	7.66%	59.28%	12	65.87%	0.072	22.86%	32.78%	7.15%	62.79%	14	64.52%	0.389
17	12.47%	21.34%	9.15%	42.96%	2	41.24%	0.125	20.79%	23.05%	17.24%	61.09%	10	52.33%	0.217
18	14.88%	24.92%	9.74%	49.55%	6	40.04%	0.107	11.19%	23.53%	4.57%	39.30%	6	32.90%	0.218
Avg							0.099							0.245

Table 14: Extended statistics on the enacted and alternative districts. Data for the enacted plan is repeated on the left side of the tables to facilitate comparison.

**Comments.** Though the previously submitted plan (S2-ALT) has slightly lower historical performance in SD 15 (due to one general election contest), it creates a new majority-minority district in SD 17 with near-perfect alignment in primary and runoff elections (7 out of 8) and is recently competitive in general elections (Biden share 48.16%). This is achieved while maintaining HCVAP majority in SD 6 and BCVP majority in SD 13.

A new supplemental plan (S2-ALT-B) drawn to emphasize electoral effectiveness shores up the existing effective districts and raises the historical alignment score in SD 17 to 10 out of 18 (3 general and 7 primary/runoff contests).

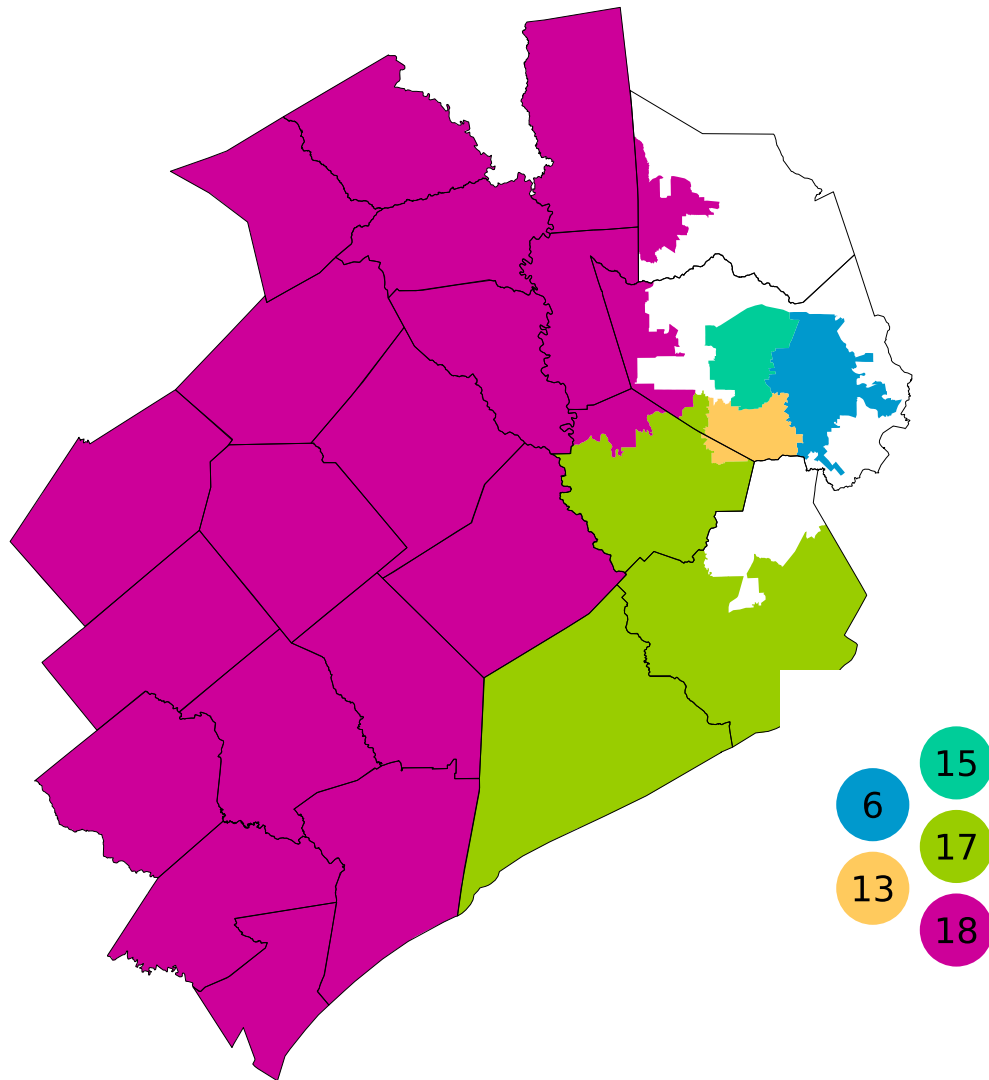


Figure 5: A new supplemental plan for Senate districts in Harris/Fort Bend Counties.

## 2.5 H1 (Tarrant)

HD	H2316							Alternative plan (previously submitted)						
	Black CVAP	Hisp CVAP	AAPI CVAP	BHA CVAP	Elect. Align.	Biden Share	Polsby Popper	Black CVAP	Hisp CVAP	AAPI CVAP	BHA CVAP	Elect. Align.	Biden Share	Polsby Popper
90	18.00%	51.04%	2.09%	71.13%	13	70.15%	0.07	9.71%	53.84%	2.34%	65.89%	15	62.67%	0.149
91	6.20%	18.30%	5.93%	30.43%	4	39.84%	0.443	12.16%	15.26%	7.02%	34.44%	5	46.39%	0.222
92	26.95%	23.14%	7.38%	57.47%	13	62.18%	0.098	21.52%	25.76%	7.00%	54.29%	13	57.24%	0.373
93	10.33%	16.56%	6.59%	33.47%	3	42.75%	0.306	8.67%	16.15%	8.22%	33.04%	6	42.40%	0.253
94	12.55%	13.63%	5.46%	31.63%	3	45.26%	0.078	34.36%	19.01%	4.71%	58.07%	14	64.28%	0.239
95	48.11%	21.04%	2.75%	71.90%	14	76.43%	0.089	47.31%	24.50%	2.70%	74.51%	16	74.70%	0.222
96	18.47%	13.22%	4.45%	36.14%	6	45.09%	0.181	13.97%	13.94%	4.04%	31.95%	8	42.59%	0.157
97	10.22%	15.66%	3.40%	29.28%	2	45.10%	0.264	11.97%	17.18%	2.69%	31.84%	6	50.62%	0.229
98	5.71%	9.90%	6.68%	22.29%	2	38.53%	0.454	4.01%	10.99%	6.05%	21.04%	5	36.66%	0.28
99	9.49%	22.38%	1.94%	33.81%	4	41.48%	0.248	6.77%	17.52%	2.33%	26.62%	5	35.31%	0.282
101	32.49%	22.43%	11.13%	66.05%	16	67.69%	0.324	28.62%	17.64%	9.12%	55.38%	15	60.94%	0.202
Avg							0.232							0.237

Table 15: Extended statistics on the enacted and alternative districts.

**Comments.** The previously submitted plan (H1-ALT) maintains a majority-HCVAP district in HD 90, and creates a new majority-coalition district in HD 94. This new district is highly likely to perform effectively for coalition preferences, showing historical electoral alignment in 6 out of 8 primary/runoff contests and all 8 general elections.

## 2.6 H3 (Denton/Wise)

HD	H2316							Alternative plan (previously submitted)						
	Black CVAP	Hisp CVAP	AAPI CVAP	BHA CVAP	Elect. Align.	Biden Share	Polsby Popper	Black CVAP	Hisp CVAP	AAPI CVAP	BHA CVAP	Elect. Align.	Biden Share	Polsby Popper
57	11.85%	13.22%	4.13%	29.20%	7	43.29%	0.188	9.04%	12.93%	3.22%	25.19%	8	41.93%	0.455
63	10.18%	15.54%	9.01%	34.74%	6	47.19%	0.258	4.42%	9.81%	5.70%	19.93%	7	37.71%	0.324
64	8.17%	14.37%	2.46%	25.00%	5	38.82%	0.444	7.59%	14.04%	2.42%	24.05%	6	36.70%	0.535
65	12.03%	13.81%	9.04%	34.88%	7	45.77%	0.159	18.44%	20.10%	11.67%	50.21%	13	58.94%	0.28
106	9.85%	11.87%	8.33%	30.05%	6	43.05%	0.323	12.88%	12.51%	9.96%	35.35%	8	47.88%	0.337
Avg							0.275							0.386

Table 16: Extended statistics on the enacted and alternative districts.

**Comments.** The previously submitted Denton-Wise House plan (H3-ALT) created a majority-coalition district (HD 65) where the state's enacted plan has none. This table shows that the new illustrative district will be effective for Black-Hispanic-Asian voters to elect their candidates of choice, as it has performed for the coalition in all primary/runoff and 5 out of 8 general elections.

## 2.7 H4 (Lubbock)

HD	H2316							Alternative plan						
	Black CVAP	Hisp CVAP	AAPI CVAP	BHA CVAP	Elect. Align.	Biden Share	Polsby Popper	Black CVAP	Hisp CVAP	AAPI CVAP	BHA CVAP	Elect. Align.	Biden Share	Polsby Popper
83	4.17%	29.40%	0.98%	34.56%	5	23.10%	0.337	8.95%	42.22%	0.90%	52.07%	8	33.48%	0.354
84	9.15%	35.24%	1.91%	46.30%	6	41.45%	0.256	4.70%	23.39%	1.98%	30.08%	7	29.48%	0.431
Avg							0.296							0.393

HD	H2316							Alternative plan (new supplemental)						
	Black CVAP	Hisp CVAP	AAPI CVAP	BHA CVAP	Elect. Align.	Biden Share	Polsby Popper	Black CVAP	Hisp CVAP	AAPI CVAP	BHA CVAP	Elect. Align.	Biden Share	Polsby Popper
83	4.17%	29.40%	0.98%	34.56%	5	23.10%	0.337	3.94%	27.10%	1.36%	32.40%	7	21.97%	0.326
84	9.15%	35.24%	1.91%	46.30%	6	41.45%	0.256	9.51%	37.67%	1.56%	48.75%	8	45.00%	0.395
Avg							0.296							0.361

Table 17: Extended statistics on the enacted and alternative districts. Data for the enacted plan is repeated on the left side of the tables to facilitate comparison.

**Comments.** The previously submitted Lubbock House plan (H4-ALT) does have a majority-minority district, but it is far from performing for Democrats in statewide elections. However, the specific history of Lubbock shows that local minority-preferred candidates can run far ahead of statewide Democrats. Additionally, a new supplemental plan (H4-ALT-B) can be created in which, while HD 84 is not majority-minority, it is close to that level; at the same time, the Biden share shows that this district is far more likely to align with coalition preferences in general elections.

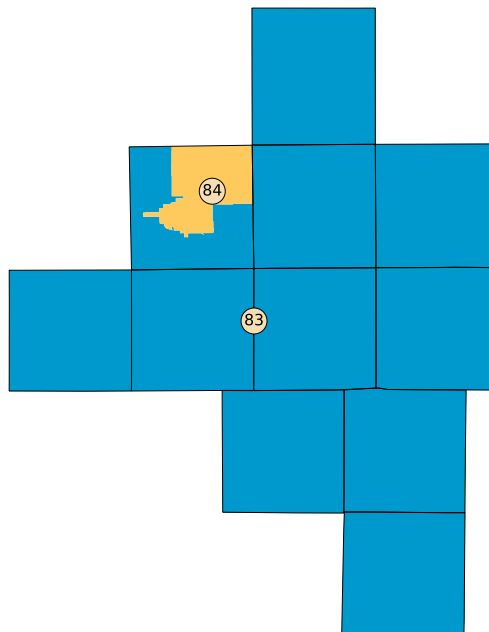


Figure 6: A new supplemental plan for House districts in Lubbock County.

## 2.8 H5 (Brazoria)

HD	H2316							Alternative plan (previously submitted)						
	Black CVAP	Hisp CVAP	AAPI CVAP	BHA CVAP	Elect. Align.	Biden Share	Polsby Popper	Black CVAP	Hisp CVAP	AAPI CVAP	BHA CVAP	Elect. Align.	Biden Share	Polsby Popper
25	16.77%	24.75%	5.46%	46.98%	8	40.26%	0.197	9.20%	27.18%	1.16%	37.54%	8	26.94%	0.381
29	14.57%	25.59%	5.69%	45.85%	8	41.23%	0.304	23.03%	22.89%	10.58%	56.50%	10	53.04%	0.17
Avg							0.251							0.275

Table 18: Extended statistics on the enacted and alternative districts.

**Comments.** The previously submitted Brazoria House plan (H5-ALT) is aligned with coalition preferences in all 8 primary and runoff elections and in 2 out of 8 general elections. However, the strong Biden share shows that the chronological trend favors coalition preferences in those general elections, and we can expect this district to perform for the Black-Hispanic-Asian coalition in the decade to come.

## 3 Conclusion

Through a careful review of extensive data at the statewide, regional, county, and district level, I have found evidence of racially polarized voting in each of the areas of the state cited in the TX-NAACP complaint.<sup>5</sup> In particular, using the best statistical inference tests available—and taking care to use them in sound and robust ways while setting aside low-confidence numbers—I find that the Black, Hispanic, and Asian minority groups show meaningful evidence of cohesion in Democratic primary and runoff elections. This is particularly true for Black and Hispanic voters; Asian voters often agree, but the signal of Asian voting preference can be hard to detect in areas where the demographic concentration and the rates of voting eligibility are lowest. As is true within each racial group, it is also true in the broader coalition that there can be particular instances of disagreement, but each region I examined showed more occasions of alignment than of fracture. White voters who vote in Democratic primaries sometimes agree with the minority groups, especially in the smaller counties of Denton, Wise, Lubbock, and Brazoria.<sup>6</sup> However, the situation in general elections is unmistakable: Black, Hispanic, and Asian voters show very strong cohesion in supporting the Democratic candidate, a preference that is consistently blocked by an equally cohesive White bloc.

The solid agreement in primaries and resounding agreement in general elections give evidence for an effective coalition of Black, Hispanic, and Asian voters in the parts of Texas considered here. The same alignment provides support for the Gingles 2 precondition under the Voting Rights Act. The universal opposition of White voters in general elections in each of the same geographical zones gives evidence to satisfy Gingles 3.<sup>7</sup>

Finally, the eight already-submitted alternative plans, as well as three supplemental plans offered in the current report, provide demonstratives for Gingles 1 and are shown here to offer a clear opportunity for the coalition to elect their candidates of choice.

<sup>5</sup>Furthermore, the appendices support the requisite level of minority cohesion in the specific proposed districts and the level of oppositional bloc voting in corresponding enacted districts.

<sup>6</sup>Because of the clear preference for Democratic candidates by the indicated minority groups in generals, I have only considered Democratic and not Republican primary elections.

<sup>7</sup>The appendices below give further supporting data, namely displaying the estimated share of the vote obtained by the coalition candidate of choice for primary/runoff as well as general election contests, shown at the county cluster and at the district level.

## A Primary/Runoff RPV Point Estimates by County Cluster

These tables follow the same format as in my previous report of May 23, giving a point estimate for groups in two-way as well as four-way runs of ecological inference. For example, "B Est" is the estimated level of Black support for the indicated candidate. Corresponding confidence levels are found in the tables of Section [1.1](#).

These tables may be used to give a fuller picture of the degree of agreement or disagreement between the majority and the minority groups in Democratic primary and runoff elections. Note that primaries may involve many candidates, so that a point estimate below .5 can still easily be the leading candidate.

Contest	Candidate of Choice	C1					
		B Est	H Est	A Est	O4 Est	BHA Est	O2 Est
U.S. Senate Runoff 2012	Paul Sadler	0.500	0.644	0.610	0.882	0.589	0.879
Ag. Comm. Primary 2014	Jim Hogan	0.443	0.378	0.217	0.292	0.400	0.290
Ag. Comm. Runoff 2014	Jim Hogan	0.653	0.522	0.381	0.442	0.576	0.443
Governor Primary 2014	Wendy Davis	0.954	0.732	0.713	0.967	0.857	0.962
RR Comm. Primary 2014	Steve Brown	0.685	0.606	0.567	0.629	0.650	0.610
U.S. Senate Primary 2014	David Alameel	0.466	0.608	0.355	0.612	0.548	0.563
U.S. Senate Runoff 2014	David Alameel	0.665	0.761	0.705	0.882	0.724	0.860
President Primary 2016	Hillary Clinton	0.876	0.667	0.483	0.569	0.747	0.528
RR Comm. Primary 2016	Grady Yarbrough	0.500	0.391	0.254	0.336	0.429	0.318
RR Comm. Runoff 2016	Grady Yarbrough	0.700	0.527	0.491	0.489	0.599	0.488
Comptroller Primary 2018	Tim Mahoney	0.533	0.570	0.340	0.366	0.531	0.342
Governor Runoff 2018	Lupe Valdez	0.589	0.737	0.508	0.479	0.673	0.445
Land Comm. Primary 2018	Miguel Suazo	0.525	0.771	0.755	0.671	0.680	0.660
Lt. Governor Primary 2018	Michael Cooper	0.659	0.545	0.525	0.286	0.594	0.288
RR Comm. Primary 2018	Chris Spellmon	0.627	0.355	0.394	0.447	0.467	0.453
U.S. Senate Primary 2018	Sema Hernandez	0.306	0.382	0.285	0.070	0.340	0.070
RR Comm. Runoff 2020	Roberto Alonzo	0.512	0.508	0.380	0.180	0.500	0.184
U.S. Senate Runoff 2020	Royce West	0.873	0.414	0.511	0.392	0.678	0.406

Table 19: C1 Democratic Primary and Runoff Elections

		<b>C2</b>					
Contest	Candidate of Choice	B Est	H Est	A Est	O4 Est	BHA Est	O2 Est
U.S. Senate Primary 2012	Grady Yarbrough	0.322	0.293	0.172	0.222	0.301	0.220
U.S. Senate Runoff 2012	Grady Yarbrough	0.568	0.374	0.367	0.116	0.440	0.122
Ag. Comm. Primary 2014	Jim Hogan	0.518	0.386	0.229	0.325	0.428	0.319
Ag. Comm. Runoff 2014	Jim Hogan	0.644	0.540	0.394	0.500	0.578	0.483
Governor Primary 2014	Wendy Davis	0.945	0.748	0.745	0.953	0.841	0.947
RR Comm. Primary 2014	Steve Brown	0.706	0.650	0.579	0.661	0.678	0.635
U.S. Senate Primary 2014	David Alameel	0.464	0.604	0.375	0.611	0.558	0.554
U.S. Senate Runoff 2014	David Alameel	0.593	0.748	0.725	0.866	0.695	0.843
President Primary 2016	Hillary Clinton	0.884	0.679	0.507	0.586	0.745	0.526
RR Comm. Primary 2016	Grady Yarbrough	0.545	0.401	0.252	0.356	0.441	0.328
RR Comm. Runoff 2016	Grady Yarbrough	0.723	0.540	0.452	0.391	0.603	0.456
Comptroller Primary 2018	Tim Mahoney	0.518	0.569	0.350	0.367	0.523	0.334
Governor Runoff 2018	Andrew White	0.731	0.459	0.605	0.772	0.574	0.774
Land Comm. Primary 2018	Miguel Suazo	0.525	0.783	0.772	0.658	0.693	0.658
Lt. Governor Primary 2018	Michael Cooper	0.671	0.536	0.514	0.230	0.591	0.236
RR Comm. Primary 2018	Chris Spellmon	0.592	0.315	0.356	0.386	0.420	0.393
U.S. Senate Primary 2018	Sema Hernandez	0.282	0.350	0.279	0.064	0.318	0.064
President Primary 2020	Joe Biden	0.551	0.264	0.309	0.470	0.369	0.455
RR Comm. Runoff 2020	Roberto Alonzo	0.527	0.493	0.371	0.165	0.495	0.170
U.S. Senate Runoff 2020	Royce West	0.755	0.342	0.451	0.270	0.547	0.297

Table 20: C2 Democratic Primary and Runoff Elections

		<b>S1</b>					
Contest	Candidate of Choice	B Est	H Est	A Est	O4 Est	BHA Est	O2 Est
U.S. Senate Runoff 2012	Paul Sadler	0.504	0.604	0.610	0.880	0.580	0.876
Ag. Comm. Primary 2014	Jim Hogan	0.444	0.409	0.218	0.297	0.413	0.295
Ag. Comm. Runoff 2014	Jim Hogan	0.655	0.518	0.385	0.445	0.556	0.446
Governor Primary 2014	Wendy Davis	0.953	0.605	0.715	0.965	0.750	0.960
RR Comm. Primary 2014	Steve Brown	0.687	0.564	0.569	0.626	0.614	0.608
U.S. Senate Primary 2014	David Alameel	0.458	0.626	0.355	0.611	0.570	0.562
U.S. Senate Runoff 2014	David Alameel	0.656	0.725	0.705	0.879	0.710	0.856
President Primary 2016	Hillary Clinton	0.874	0.691	0.480	0.564	0.747	0.524
RR Comm. Primary 2016	Grady Yarbrough	0.496	0.385	0.252	0.330	0.418	0.312
RR Comm. Runoff 2016	Grady Yarbrough	0.695	0.474	0.489	0.484	0.537	0.487
Comptroller Primary 2018	Tim Mahoney	0.534	0.613	0.345	0.378	0.560	0.353
Governor Runoff 2018	Lupe Valdez	0.584	0.760	0.511	0.473	0.698	0.439
Land Comm. Primary 2018	Miguel Suazo	0.526	0.785	0.754	0.664	0.700	0.653
Lt. Governor Primary 2018	Michael Cooper	0.660	0.547	0.527	0.291	0.589	0.292
RR Comm. Primary 2018	Chris Spellmon	0.627	0.353	0.393	0.449	0.451	0.456
U.S. Senate Primary 2018	Sema Hernandez	0.307	0.413	0.282	0.071	0.363	0.070
RR Comm. Runoff 2020	Roberto Alonzo	0.511	0.523	0.378	0.184	0.506	0.186
U.S. Senate Runoff 2020	Royce West	0.871	0.394	0.508	0.384	0.643	0.399

Table 21: S1 Democratic Primary and Runoff Elections

		<b>S2</b>					
Contest	Candidate of Choice	B Est	H Est	A Est	O4 Est	BHA Est	O2 Est
U.S. Senate Primary 2012	Grady Yarbrough	0.321	0.303	0.172	0.231	0.306	0.231
U.S. Senate Runoff 2012	Grady Yarbrough	0.572	0.375	0.371	0.125	0.447	0.135
Ag. Comm. Primary 2014	Jim Hogan	0.517	0.397	0.232	0.344	0.437	0.339
Ag. Comm. Runoff 2014	Jim Hogan	0.649	0.537	0.390	0.484	0.576	0.473
Governor Primary 2014	Wendy Davis	0.947	0.753	0.747	0.936	0.849	0.925
RR Comm. Primary 2014	Steve Brown	0.705	0.649	0.581	0.658	0.679	0.631
U.S. Senate Primary 2014	David Alameel	0.470	0.594	0.377	0.609	0.552	0.549
U.S. Senate Runoff 2014	David Alameel	0.599	0.716	0.724	0.843	0.681	0.814
President Primary 2016	Hillary Clinton	0.884	0.685	0.513	0.603	0.752	0.539
RR Comm. Primary 2016	Grady Yarbrough	0.541	0.407	0.252	0.355	0.444	0.327
RR Comm. Runoff 2016	Grady Yarbrough	0.729	0.549	0.458	0.397	0.617	0.462
Comptroller Primary 2018	Tim Mahoney	0.515	0.567	0.356	0.384	0.520	0.348
Governor Runoff 2018	Andrew White	0.740	0.461	0.613	0.790	0.582	0.791
Land Comm. Primary 2018	Miguel Suazo	0.530	0.777	0.777	0.654	0.689	0.649
Lt. Governor Primary 2018	Michael Cooper	0.668	0.542	0.522	0.244	0.597	0.250
RR Comm. Primary 2018	Chris Spellmon	0.591	0.322	0.355	0.380	0.428	0.392
U.S. Senate Primary 2018	Sema Hernandez	0.278	0.348	0.279	0.067	0.312	0.068
President Primary 2020	Joe Biden	0.551	0.266	0.314	0.498	0.375	0.481
RR Comm. Runoff 2020	Roberto Alonzo	0.528	0.499	0.372	0.170	0.498	0.177
U.S. Senate Runoff 2020	Royce West	0.755	0.344	0.459	0.306	0.556	0.336

Table 22: S2 Democratic Primary and Runoff Elections

		<b>H1</b>					
Contest	Candidate of Choice	B Est	H Est	A Est	O4 Est	BHA Est	O2 Est
U.S. Senate Runoff 2012	Paul Sadler	0.462	0.635	0.603	0.857	0.559	0.858
Ag. Comm. Primary 2014	Jim Hogan	0.484	0.392	0.223	0.328	0.423	0.323
Ag. Comm. Runoff 2014	Jim Hogan	0.664	0.546	0.387	0.478	0.595	0.468
Governor Primary 2014	Wendy Davis	0.959	0.762	0.706	0.969	0.869	0.963
RR Comm. Primary 2014	Steve Brown	0.663	0.605	0.556	0.596	0.635	0.579
U.S. Senate Primary 2014	David Alameel	0.456	0.595	0.358	0.634	0.543	0.579
U.S. Senate Runoff 2014	David Alameel	0.655	0.767	0.702	0.878	0.726	0.847
President Primary 2016	Hillary Clinton	0.868	0.663	0.483	0.563	0.735	0.516
RR Comm. Primary 2016	Grady Yarbrough	0.472	0.383	0.247	0.316	0.408	0.296
RR Comm. Runoff 2016	Grady Yarbrough	0.704	0.561	0.480	0.459	0.618	0.484
Comptroller Primary 2018	Tim Mahoney	0.543	0.582	0.368	0.442	0.543	0.403
Governor Runoff 2018	Lupe Valdez	0.455	0.672	0.495	0.418	0.589	0.381
Land Comm. Primary 2018	Miguel Suazo	0.522	0.769	0.748	0.626	0.679	0.618
Lt. Governor Primary 2018	Michael Cooper	0.643	0.557	0.539	0.333	0.596	0.332
RR Comm. Primary 2018	Chris Spellmon	0.609	0.341	0.385	0.442	0.448	0.452
U.S. Senate Primary 2018	Sema Hernandez	0.314	0.365	0.290	0.089	0.336	0.087
RR Comm. Runoff 2020	Roberto Alonzo	0.537	0.512	0.394	0.211	0.517	0.213
U.S. Senate Runoff 2020	Royce West	0.831	0.374	0.493	0.344	0.626	0.372

Table 23: H1 Democratic Primary and Runoff Elections

		<b>H3</b>					
Contest	Candidate of Choice	B Est	H Est	A Est	O4 Est	BHA Est	O2 Est
U.S. Senate Primary 2012	Paul Sadler	0.266	0.296	0.234	0.539	0.296	0.539
U.S. Senate Runoff 2012	Paul Sadler	0.569	0.559	0.605	0.853	0.560	0.847
Ag. Comm. Primary 2014	Richard Friedman	0.266	0.446	0.250	0.381	0.439	0.379
Ag. Comm. Runoff 2014	Richard Friedman	0.372	0.490	0.603	0.543	0.487	0.543
Governor Primary 2014	Wendy Davis	0.914	0.465	0.729	0.938	0.483	0.938
RR Comm. Primary 2014	Steve Brown	0.699	0.511	0.566	0.612	0.519	0.599
U.S. Senate Primary 2014	Kesha Rogers	0.552	0.246	0.338	0.202	0.258	0.221
U.S. Senate Runoff 2014	David Alameel	0.505	0.697	0.689	0.814	0.693	0.786
President Primary 2016	Bernie Sanders	0.190	0.271	0.587	0.486	0.273	0.529
RR Comm. Primary 2016	Cody Garrett	0.349	0.445	0.387	0.345	0.438	0.337
RR Comm. Runoff 2016	Grady Yarbrough	0.637	0.403	0.478	0.478	0.408	0.494
Comptroller Primary 2018	Joi Chevalier	0.427	0.289	0.630	0.529	0.306	0.567
Governor Runoff 2018	Lupe Valdez	0.456	0.798	0.474	0.413	0.782	0.385
Land Comm. Primary 2018	Miguel Suazo	0.504	0.824	0.750	0.602	0.804	0.604
Lt. Governor Primary 2018	Michael Cooper	0.656	0.549	0.506	0.292	0.556	0.294
RR Comm. Primary 2018	Roman McAllen	0.382	0.647	0.596	0.478	0.631	0.481
U.S. Senate Primary 2018	Beto O'Rourke	0.275	0.426	0.634	0.813	0.425	0.813
President Primary 2020	Bernie Sanders	0.270	0.436	0.448	0.280	0.425	0.300
RR Comm. Runoff 2020	Chrysta Castaneda	0.501	0.449	0.661	0.794	0.458	0.813
U.S. Senate Primary 2020	Royce West	0.505	0.042	0.173	0.178	0.082	0.189
U.S. Senate Runoff 2020	Royce West	0.764	0.343	0.452	0.294	0.380	0.312

Table 24: H3 Democratic Primary and Runoff Elections

		<b>H4</b>					
Contest	Candidate of Choice	B Est	H Est	A Est	O4 Est	BHA Est	O2 Est
U.S. Senate Primary 2012	Paul Sadler	0.278	0.310	0.252	0.511	0.311	0.493
U.S. Senate Runoff 2012	Paul Sadler	0.552	0.557	0.628	0.815	0.558	0.805
Ag. Comm. Primary 2014	Jim Hogan	0.490	0.405	0.230	0.412	0.417	0.406
Ag. Comm. Runoff 2014	Jim Hogan	0.587	0.501	0.338	0.477	0.510	0.485
Governor Primary 2014	Wendy Davis	0.901	0.633	0.769	0.912	0.695	0.913
RR Comm. Primary 2014	Steve Brown	0.615	0.644	0.580	0.622	0.641	0.608
U.S. Senate Primary 2014	Maxey Scherr	0.177	0.240	0.311	0.271	0.221	0.292
U.S. Senate Runoff 2014	David Alameel	0.539	0.665	0.707	0.732	0.638	0.714
President Primary 2016	Hillary Clinton	0.816	0.666	0.510	0.549	0.696	0.507
RR Comm. Primary 2016	Cody Garrett	0.339	0.465	0.380	0.312	0.430	0.306
RR Comm. Runoff 2016	Grady Yarbrough	0.673	0.465	0.482	0.483	0.478	0.496
Comptroller Primary 2018	Tim Mahoney	0.531	0.619	0.329	0.394	0.571	0.353
Governor Runoff 2018	Lupe Valdez	0.473	0.729	0.516	0.493	0.660	0.446
Land Comm. Primary 2018	Miguel Suazo	0.523	0.773	0.764	0.614	0.729	0.617
Lt. Governor Primary 2018	Mike Collier	0.368	0.536	0.516	0.743	0.492	0.737
RR Comm. Primary 2018	Roman McAllen	0.406	0.685	0.642	0.542	0.625	0.545
U.S. Senate Primary 2018	Sema Hernandez	0.349	0.474	0.280	0.095	0.424	0.098
President Primary 2020	Bernie Sanders	0.252	0.390	0.384	0.269	0.362	0.280
RR Comm. Runoff 2020	Chrysta Castaneda	0.470	0.467	0.611	0.795	0.475	0.785
U.S. Senate Primary 2020	Annie Garcia	0.114	0.385	0.156	0.100	0.306	0.091
U.S. Senate Runoff 2020	Royce West	0.765	0.357	0.482	0.300	0.506	0.346

Table 25: H4 Democratic Primary and Runoff Elections

Contest	Candidate of Choice	H5					
		B Est	H Est	A Est	O4 Est	BHA Est	O2 Est
U.S. Senate Primary 2012	Paul Sadler	0.348	0.353	0.256	0.627	0.361	0.616
U.S. Senate Runoff 2012	Paul Sadler	0.562	0.629	0.606	0.866	0.610	0.862
Ag. Comm. Primary 2014	Jim Hogan	0.492	0.411	0.219	0.408	0.430	0.410
Ag. Comm. Runoff 2014	Jim Hogan	0.616	0.504	0.349	0.479	0.533	0.477
Governor Primary 2014	Wendy Davis	0.925	0.790	0.762	0.953	0.853	0.951
RR Comm. Primary 2014	Steve Brown	0.669	0.614	0.571	0.622	0.645	0.605
U.S. Senate Primary 2014	David Alameel	0.350	0.444	0.335	0.467	0.417	0.436
U.S. Senate Runoff 2014	David Alameel	0.633	0.686	0.677	0.812	0.670	0.799
President Primary 2016	Hillary Clinton	0.848	0.670	0.481	0.588	0.722	0.536
RR Comm. Primary 2016	Grady Yarbrough	0.516	0.432	0.246	0.427	0.445	0.400
RR Comm. Runoff 2016	Cody Garrett	0.368	0.511	0.596	0.567	0.475	0.536
Comptroller Primary 2018	Joi Chevalier	0.456	0.410	0.675	0.567	0.453	0.615
Governor Runoff 2018	Andrew White	0.556	0.403	0.489	0.577	0.435	0.613
Land Comm. Primary 2018	Miguel Suazo	0.503	0.739	0.765	0.607	0.674	0.593
Lt. Governor Primary 2018	Michael Cooper	0.653	0.517	0.492	0.276	0.568	0.291
RR Comm. Primary 2018	Roman McAllen	0.419	0.645	0.631	0.534	0.574	0.519
U.S. Senate Primary 2018	Beto O'Rourke	0.253	0.471	0.559	0.784	0.406	0.769
President Primary 2020	Joe Biden	0.527	0.273	0.284	0.505	0.350	0.492
RR Comm. Runoff 2020	Chrysta Castaneda	0.479	0.492	0.618	0.789	0.482	0.785
U.S. Senate Primary 2020	Cristina Ramirez	0.064	0.383	0.184	0.100	0.239	0.099
U.S. Senate Runoff 2020	Royce West	0.803	0.387	0.474	0.342	0.578	0.389

Table 26: H5 Democratic Primary and Runoff Elections

## B General Election RPV Point Estimates by District

These tables follow the same format as above, giving a point estimate for groups in two-way as well as four-way runs of ecological inference. For example, "B Est" is the estimated level of Black support for the indicated candidate. "CoC" is the coalition candidate of choice.

Though only selected districts are presented here and in the following section, RPV results winnowed to every district have been provided to Defendants, and are available on request. The results support a showing of Gingles 2 in the alternative districts and Gingles 3 in the enacted districts.

Election	CoC	CD 12 in C2193				CD 12 in C1-ALT			
		B Est	H Est	A Est	O Est	B Est	H Est	A Est	O Est
Atty. General 2018	Justin Nelson	0.950	0.895	0.877	0.239	0.960	0.919	0.880	0.351
Ag. Comm. 2014	Jim Hogan	0.946	0.884	0.620	0.197	0.949	0.886	0.624	0.252
Comptroller 2018	Joi Chevalier	0.952	0.900	0.870	0.193	0.964	0.920	0.867	0.288
Governor 2014	Wendy Davis	0.947	0.862	0.655	0.219	0.949	0.865	0.662	0.282
Land Comm. 2018	Miguel Suazo	0.951	0.882	0.869	0.187	0.960	0.901	0.872	0.275
Lt. Governor 2018	Mike Collier	0.950	0.885	0.874	0.234	0.960	0.907	0.876	0.342
RR Comm. 2016	Grady Yarbrough	0.952	0.901	0.811	0.157	0.960	0.914	0.822	0.232
President 2016	Hillary Clinton	0.949	0.892	0.846	0.187	0.961	0.912	0.854	0.289
President 2020	Joe Biden	0.950	0.818	0.891	0.237	0.963	0.856	0.882	0.358
RR Comm. 2014	Steve Brown	0.948	0.885	0.631	0.194	0.950	0.888	0.642	0.253
RR Comm. 2016	Grady Yarbrough	0.952	0.901	0.811	0.157	0.960	0.914	0.822	0.232
RR Comm. 2020	Chrysta Castaneda	0.951	0.844	0.878	0.198	0.965	0.879	0.877	0.309
RR Comm. 2018	Roman McAllen	0.952	0.898	0.865	0.194	0.961	0.918	0.866	0.287
U.S. Senate 2012	Paul Sadler	0.940	0.837	0.629	0.184	0.946	0.845	0.651	0.245

Table 27: CD 12 Comparison in General Elections. This district was not majority-coalition in the enacted plan C2193, but is made so in the alternative plan C1-ALT. This supports a demonstration of Gingles 2 in the alternative plan and Gingles 3 in the enacted plan.

Election	CoC	CD 22 in C2193				CD 22 in C2-ALT			
		B Est	H Est	A Est	O Est	B Est	H Est	A Est	O Est
Atty. General 2018	Justin Nelson	0.927	0.851	0.851	0.158	0.935	0.862	0.862	0.177
Ag. Comm. 2014	Jim Hogan	0.911	0.832	0.602	0.135	0.924	0.852	0.607	0.148
Comptroller 2018	Joi Chevalier	0.928	0.853	0.824	0.117	0.939	0.866	0.844	0.133
Governor 2014	Wendy Davis	0.918	0.799	0.651	0.142	0.926	0.817	0.657	0.159
Land Comm. 2018	Miguel Suazo	0.926	0.828	0.823	0.119	0.938	0.841	0.840	0.132
Lt. Governor 2018	Mike Collier	0.924	0.833	0.836	0.161	0.936	0.848	0.849	0.179
RR Comm. 2016	Grady Yarbrough	0.928	0.862	0.757	0.103	0.937	0.874	0.775	0.117
President 2016	Hillary Clinton	0.930	0.848	0.842	0.117	0.938	0.858	0.841	0.136
President 2020	Joe Biden	0.924	0.754	0.846	0.165	0.933	0.770	0.862	0.182
RR Comm. 2014	Steve Brown	0.909	0.840	0.615	0.131	0.920	0.854	0.621	0.146
RR Comm. 2016	Grady Yarbrough	0.928	0.862	0.757	0.103	0.937	0.874	0.775	0.117
RR Comm. 2020	Chrysta Castaneda	0.930	0.793	0.812	0.131	0.938	0.805	0.840	0.145
RR Comm. 2018	Roman McAllen	0.927	0.852	0.819	0.120	0.939	0.861	0.840	0.135
U.S. Senate 2012	Paul Sadler	0.906	0.789	0.540	0.139	0.919	0.807	0.563	0.151

Table 28: CD 22 Comparison in General Elections. This district was not majority-coalition in the enacted plan C2193, but is made so in the alternative plan C2-ALT. This supports a demonstration of Gingles 2 in the alternative plan and Gingles 3 in the enacted plan.

Election	CoC	SD 10 in S2168				SD 10 in S1-ALT			
		B Est	H Est	A Est	O Est	B Est	H Est	A Est	O Est
Atty. General 2018	Justin Nelson	0.953	0.900	0.880	0.315	0.955	0.898	0.873	0.284
Ag. Comm. 2014	Jim Hogan	0.950	0.888	0.622	0.264	0.953	0.884	0.620	0.221
Comptroller 2018	Joi Chevalier	0.956	0.903	0.870	0.266	0.960	0.902	0.863	0.229
Governor 2014	Wendy Davis	0.949	0.869	0.648	0.288	0.953	0.862	0.652	0.246
Land Comm. 2018	Miguel Suazo	0.955	0.887	0.871	0.260	0.957	0.883	0.868	0.221
Lt. Governor 2018	Mike Collier	0.953	0.890	0.875	0.312	0.956	0.887	0.871	0.277
RR Comm. 2016	Grady Yarbrough	0.953	0.905	0.818	0.214	0.958	0.903	0.813	0.182
President 2016	Hillary Clinton	0.953	0.896	0.849	0.256	0.958	0.896	0.846	0.227
President 2020	Joe Biden	0.953	0.828	0.896	0.306	0.958	0.828	0.884	0.288
RR Comm. 2014	Steve Brown	0.951	0.891	0.631	0.264	0.953	0.885	0.631	0.218
RR Comm. 2016	Grady Yarbrough	0.953	0.905	0.818	0.214	0.958	0.903	0.813	0.182
RR Comm. 2020	Chrysta Castaneda	0.954	0.850	0.883	0.263	0.958	0.852	0.873	0.239
RR Comm. 2018	Roman McAllen	0.955	0.902	0.867	0.268	0.957	0.901	0.862	0.228
U.S. Senate 2012	Paul Sadler	0.942	0.848	0.637	0.246	0.947	0.844	0.631	0.205

Table 29: SD 10 Comparison in General Elections. This district was not majority-coalition in the enacted plan S2168, but is made so in the alternative plan S1-ALT. This supports a demonstration of Gingles 2 in the alternative plan and Gingles 3 in the enacted plan.

Election	CoC	SD 17 in S2168				SD 17 in S2-ALT			
		B Est	H Est	A Est	O Est	B Est	H Est	A Est	O Est
Atty. General 2018	Justin Nelson	0.942	0.872	0.857	0.195	0.948	0.871	0.860	0.201
Ag. Comm. 2014	Jim Hogan	0.929	0.847	0.609	0.156	0.938	0.855	0.577	0.163
Comptroller 2018	Joi Chevalier	0.943	0.874	0.835	0.147	0.952	0.874	0.838	0.152
Governor 2014	Wendy Davis	0.934	0.821	0.657	0.171	0.942	0.819	0.631	0.178
Land Comm. 2018	Miguel Suazo	0.943	0.850	0.839	0.151	0.949	0.849	0.840	0.151
Lt. Governor 2018	Mike Collier	0.940	0.855	0.849	0.197	0.948	0.856	0.846	0.202
RR Comm. 2016	Grady Yarbrough	0.946	0.883	0.770	0.126	0.947	0.881	0.773	0.129
President 2016	Hillary Clinton	0.945	0.874	0.843	0.152	0.949	0.868	0.838	0.158
President 2020	Joe Biden	0.939	0.773	0.855	0.191	0.944	0.770	0.853	0.207
RR Comm. 2014	Steve Brown	0.926	0.856	0.619	0.153	0.937	0.857	0.602	0.159
RR Comm. 2016	Grady Yarbrough	0.946	0.883	0.770	0.126	0.947	0.881	0.773	0.129
RR Comm. 2020	Chrysta Castaneda	0.942	0.809	0.831	0.158	0.946	0.807	0.828	0.168
RR Comm. 2018	Roman McAllen	0.943	0.870	0.832	0.149	0.950	0.869	0.837	0.155
U.S. Senate 2012	Paul Sadler	0.926	0.812	0.564	0.160	0.934	0.815	0.576	0.159

Table 30: SD 17 Comparison in General Elections. This district was not majority-coalition in the enacted plan S2168, but is made so in the alternative plan S2-ALT. This supports a demonstration of Gingles 2 in the alternative plan and Gingles 3 in the enacted plan.

Election	CoC	HD 29 in H2316				HD 29 in H1-ALT			
		B Est	H Est	A Est	O Est	B Est	H Est	A Est	O Est
Atty. General 2018	Justin Nelson	0.897	0.834	0.866	0.118	0.888	0.841	0.862	0.108
Ag. Comm. 2014	Jim Hogan	0.893	0.825	0.595	0.123	0.884	0.836	0.596	0.109
Comptroller 2018	Joi Chevalier	0.902	0.830	0.859	0.090	0.896	0.844	0.855	0.080
Governor 2014	Wendy Davis	0.896	0.794	0.635	0.131	0.887	0.797	0.642	0.115
Land Comm. 2018	Miguel Suazo	0.903	0.803	0.860	0.093	0.892	0.815	0.853	0.086
Lt. Governor 2018	Mike Collier	0.889	0.807	0.858	0.123	0.886	0.822	0.856	0.114
RR Comm. 2016	Grady Yarbrough	0.906	0.851	0.803	0.091	0.902	0.859	0.802	0.083
President 2016	Hillary Clinton	0.904	0.824	0.834	0.089	0.897	0.842	0.834	0.078
President 2020	Joe Biden	0.902	0.725	0.880	0.108	0.893	0.740	0.882	0.098
RR Comm. 2014	Steve Brown	0.896	0.829	0.620	0.116	0.886	0.834	0.628	0.102
RR Comm. 2016	Grady Yarbrough	0.906	0.851	0.803	0.091	0.902	0.859	0.802	0.083
RR Comm. 2020	Chrysta Castaneda	0.904	0.770	0.873	0.092	0.899	0.778	0.869	0.083
RR Comm. 2018	Roman McAllen	0.911	0.833	0.858	0.088	0.902	0.839	0.851	0.081
U.S. Senate 2012	Paul Sadler	0.883	0.789	0.648	0.129	0.888	0.795	0.635	0.119

Table 31: HD 29 Comparison in General Elections. This district was not majority-coalition in the enacted plan H2316, but is made so in the alternative plan H1-ALT. This supports a demonstration of Gingles 2 in the alternative plan and Gingles 3 in the enacted plan.

Election	CoC	HD 65 in H2316				HD 65 in H3-ALT			
		B Est	H Est	A Est	O Est	B Est	H Est	A Est	O Est
Atty. General 2018	Justin Nelson	0.909	0.796	0.885	0.177	0.906	0.812	0.881	0.162
Ag. Comm. 2014	Jim Hogan	0.877	0.839	0.591	0.123	0.884	0.843	0.595	0.107
Comptroller 2018	Joi Chevalier	0.923	0.784	0.880	0.125	0.922	0.798	0.868	0.114
Governor 2014	Wendy Davis	0.880	0.764	0.624	0.125	0.876	0.770	0.631	0.114
Land Comm. 2018	Miguel Suazo	0.914	0.721	0.874	0.127	0.907	0.742	0.860	0.117
Lt. Governor 2018	Mike Collier	0.920	0.774	0.871	0.193	0.910	0.784	0.871	0.185
RR Comm. 2016	Grady Yarbrough	0.896	0.806	0.772	0.102	0.907	0.844	0.805	0.095
President 2016	Hillary Clinton	0.908	0.797	0.825	0.120	0.913	0.815	0.846	0.127
President 2020	Joe Biden	0.922	0.659	0.895	0.177	0.909	0.671	0.887	0.171
RR Comm. 2014	Steve Brown	0.883	0.839	0.592	0.124	0.884	0.849	0.616	0.105
RR Comm. 2016	Grady Yarbrough	0.896	0.806	0.772	0.102	0.907	0.844	0.805	0.095
RR Comm. 2020	Chrysta Castaneda	0.926	0.706	0.880	0.130	0.927	0.721	0.879	0.127
RR Comm. 2018	Roman McAllen	0.919	0.783	0.872	0.134	0.908	0.809	0.861	0.120
U.S. Senate 2012	Paul Sadler	0.870	0.712	0.555	0.131	0.874	0.720	0.615	0.106

Table 32: HD 65 Comparison in General Elections. This district was not majority-coalition in the enacted plan H2316, but is made so in the alternative plan H3-ALT. This supports a demonstration of Gingles 2 in the alternative plan and Gingles 3 in the enacted plan.

Election	CoC	HD 83 in H2316				HD 83 in H4-ALT			
		B Est	H Est	A Est	O Est	B Est	H Est	A Est	O Est
Atty. General 2018	Justin Nelson	0.914	0.828	0.874	0.149	0.917	0.817	0.878	0.162
Ag. Comm. 2014	Jim Hogan	0.905	0.815	0.601	0.111	0.895	0.814	0.618	0.124
Comptroller 2018	Joi Chevalier	0.923	0.830	0.866	0.108	0.915	0.819	0.863	0.118
Governor 2014	Wendy Davis	0.901	0.754	0.633	0.117	0.905	0.760	0.663	0.130
Land Comm. 2018	Miguel Suazo	0.919	0.802	0.869	0.106	0.919	0.783	0.867	0.113
Lt. Governor 2018	Mike Collier	0.913	0.816	0.869	0.157	0.916	0.806	0.880	0.167
RR Comm. 2016	Grady Yarbrough	0.915	0.828	0.800	0.089	0.912	0.817	0.818	0.100
President 2016	Hillary Clinton	0.915	0.807	0.843	0.105	0.916	0.798	0.855	0.121
President 2020	Joe Biden	0.918	0.706	0.895	0.148	0.922	0.690	0.913	0.170
RR Comm. 2014	Steve Brown	0.901	0.810	0.634	0.108	0.896	0.813	0.634	0.119
RR Comm. 2016	Grady Yarbrough	0.915	0.828	0.800	0.089	0.912	0.817	0.818	0.100
RR Comm. 2020	Chrysta Castaneda	0.922	0.744	0.877	0.117	0.925	0.724	0.895	0.133
RR Comm. 2018	Roman McAllen	0.921	0.822	0.869	0.106	0.918	0.807	0.871	0.116
U.S. Senate 2012	Paul Sadler	0.893	0.763	0.620	0.117	0.883	0.758	0.627	0.124

Table 33: HD 83 Comparison in General Elections. This district was not majority-coalition in the enacted plan H2316, but is made so in the alternative plan H4-ALT. This supports a demonstration of Gingles 2 in the alternative plan and Gingles 3 in the enacted plan.

		HD 94 in H2316				HD 94 in H5-ALT			
Election	CoC	B Est	H Est	A Est	O Est	B Est	H Est	A Est	O Est
Atty. General 2018	Justin Nelson	0.955	0.877	0.878	0.271	0.952	0.893	0.857	0.273
Ag. Comm. 2014	Jim Hogan	0.951	0.852	0.620	0.215	0.947	0.871	0.618	0.212
Comptroller 2018	Joi Chevalier	0.960	0.882	0.873	0.219	0.959	0.898	0.842	0.216
Governor 2014	Wendy Davis	0.952	0.843	0.651	0.238	0.947	0.855	0.644	0.238
Land Comm. 2018	Miguel Suazo	0.957	0.860	0.873	0.209	0.954	0.878	0.856	0.211
Lt. Governor 2018	Mike Collier	0.958	0.863	0.875	0.266	0.956	0.881	0.857	0.266
RR Comm. 2016	Grady Yarbrough	0.956	0.885	0.807	0.180	0.957	0.898	0.800	0.177
President 2016	Hillary Clinton	0.957	0.874	0.844	0.220	0.957	0.892	0.833	0.221
President 2020	Joe Biden	0.960	0.794	0.900	0.288	0.954	0.819	0.852	0.276
RR Comm. 2014	Steve Brown	0.955	0.860	0.630	0.210	0.947	0.874	0.623	0.209
RR Comm. 2016	Grady Yarbrough	0.956	0.885	0.807	0.180	0.957	0.898	0.800	0.177
RR Comm. 2020	Chrysta Castaneda	0.959	0.830	0.893	0.239	0.956	0.845	0.844	0.230
RR Comm. 2018	Roman McAllen	0.959	0.879	0.866	0.219	0.956	0.895	0.841	0.217
U.S. Senate 2012	Paul Sadler	0.943	0.818	0.630	0.202	0.943	0.831	0.618	0.195

Table 34: HD 94 Comparison in General Elections. This district was not majority-coalition in the enacted plan H2316, but is made so in the alternative plan H5-ALT. This supports a demonstration of Gingles 2 in the alternative plan and Gingles 3 in the enacted plan.

## C Primary/Runoff RPV Point Estimates by District

These tables follow the same format and describe the same sequence of districts as in the previous appendix, giving point estimates for the support of each group in one district from the enacted plan that was not majority-minority and a corresponding district from the alternative plan that is majority-minority. For example, "B Est" is the estimated level of Black support for the indicated candidate.

Though only selected districts are presented here and in the previous section, RPV results winnowed to every district are available in data provided to the Court.

Election	CoC	CD 12 in C2193				CD 12 in C1-ALT			
		B Est	H Est	A Est	O Est	B Est	H Est	A Est	O Est
U.S. Senate Runoff 2012	Paul Sadler	0.459	0.612	0.594	0.860	0.528	0.648	0.619	0.882
Ag. Comm Primary 2014	Jim Hogan	0.481	0.394	0.220	0.329	0.428	0.364	0.210	0.274
Ag. Comm Runoff 2014	Jim Hogan	0.655	0.549	0.397	0.501	0.635	0.534	0.371	0.408
Governor Primary 2014	Wendy Davis	0.958	0.805	0.694	0.969	0.955	0.749	0.710	0.960
RR Comm. Primary 2014	Steve Brown	0.656	0.596	0.555	0.586	0.707	0.625	0.571	0.653
U.S. Senate Primary 2014	David Alameel	0.451	0.613	0.356	0.611	0.490	0.624	0.367	0.659
U.S. Senate Runoff 2014	David Alameel	0.651	0.771	0.709	0.851	0.687	0.769	0.715	0.879
President Primary 2016	Hillary Clinton	0.867	0.668	0.476	0.545	0.885	0.668	0.485	0.623
RR Comm. Primary 2016	Grady Yarbrough	0.434	0.357	0.243	0.306	0.513	0.409	0.260	0.368
RR Comm. Runoff 2016	Grady Yarbrough	0.700	0.556	0.473	0.446	0.689	0.604	0.506	0.567
Comptroller Primary 2018	Tim Mahoney	0.581	0.578	0.364	0.422	0.532	0.541	0.331	0.355
Governor Runoff 2018	Lupe Valdez	0.534	0.670	0.501	0.430	0.672	0.777	0.523	0.512
Land Comm. Primary 2018	Miguel Suazo	0.505	0.758	0.748	0.613	0.522	0.768	0.754	0.662
Lt. Gov Primary 2018	Michael Cooper	0.630	0.566	0.544	0.307	0.663	0.555	0.537	0.297
RR Comm. Primary 2018	Chris Spellmon	0.626	0.358	0.390	0.459	0.642	0.399	0.410	0.482
U.S. Senate Primary 2018	Sema Hernandez	0.316	0.365	0.297	0.078	0.294	0.364	0.294	0.081
RR Comm. Runoff 2020	Roberto Alonzo	0.555	0.529	0.400	0.216	0.499	0.510	0.379	0.172
U.S. Senate Runoff 2020	Royce West	0.858	0.387	0.498	0.315	0.897	0.458	0.529	0.421

Table 35: CD 12 Comparison in Democratic Primary and Runoff Elections

Election	CoC	CD 22 in C2193				CD 22 in C2-ALT			
		B Est	H Est	A Est	O Est	B Est	H Est	A Est	O Est
U.S. Senate Primary 2012	Grady Yarbrough	0.273	0.300	0.174	0.271	0.281	0.297	0.164	0.269
U.S. Senate Runoff 2012	Grady Yarbrough	0.551	0.455	0.348	0.241	0.537	0.440	0.342	0.235
Ag. Comm Primary 2014	Jim Hogan	0.534	0.427	0.241	0.415	0.519	0.420	0.250	0.409
Ag. Comm Runoff 2014	Jim Hogan	0.623	0.527	0.353	0.453	0.612	0.519	0.354	0.458
Governor Primary 2014	Wendy Davis	0.938	0.741	0.770	0.906	0.940	0.725	0.790	0.903
RR Comm. Primary 2014	Steve Brown	0.711	0.638	0.598	0.624	0.733	0.636	0.587	0.626
U.S. Senate Primary 2014	David Alameel	0.343	0.517	0.386	0.530	0.336	0.483	0.365	0.498
U.S. Senate Runoff 2014	David Alameel	0.508	0.673	0.741	0.795	0.521	0.659	0.724	0.780
President Primary 2016	Hillary Clinton	0.889	0.667	0.540	0.588	0.887	0.661	0.523	0.575
RR Comm. Primary 2016	Grady Yarbrough	0.532	0.416	0.253	0.398	0.545	0.415	0.246	0.395
RR Comm. Runoff 2016	Grady Yarbrough	0.746	0.558	0.499	0.481	0.761	0.550	0.500	0.478
Comptroller Primary 2018	Tim Mahoney	0.517	0.569	0.383	0.406	0.524	0.560	0.357	0.400
Governor Runoff 2018	Andrew White	0.670	0.421	0.626	0.657	0.661	0.384	0.563	0.593
Land Comm. Primary 2018	Miguel Suazo	0.542	0.756	0.774	0.620	0.546	0.744	0.777	0.612
Lt. Gov Primary 2018	Michael Cooper	0.668	0.543	0.563	0.307	0.686	0.539	0.528	0.311
RR Comm. Primary 2018	Chris Spellmon	0.587	0.351	0.365	0.452	0.586	0.373	0.354	0.464
U.S. Senate Primary 2018	Sema Hernandez	0.279	0.353	0.274	0.115	0.289	0.341	0.293	0.108
President Primary 2020	Joe Biden	0.568	0.276	0.352	0.537	0.585	0.275	0.339	0.529
RR Comm. Primary 2020	Roberto Alonzo	0.265	0.449	0.238	0.141	0.260	0.440	0.241	0.126
RR Comm. Runoff 2020	Roberto Alonzo	0.527	0.504	0.377	0.239	0.524	0.505	0.378	0.228
U.S. Senate Runoff 2020	Royce West	0.766	0.359	0.460	0.332	0.769	0.372	0.464	0.334

Table 36: CD 22 Comparison in Democratic Primary and Runoff Elections

Election	CoC	SD 10 in S2168				SD 10 in S1-ALT			
		B Est	H Est	A Est	O Est	B Est	H Est	A Est	O Est
U.S. Senate Runoff 2012	Paul Sadler	0.443	0.639	0.600	0.901	0.462	0.652	0.598	0.863
Ag. Comm Primary 2014	Jim Hogan	0.480	0.377	0.217	0.275	0.487	0.393	0.220	0.320
Ag. Comm Runoff 2014	Jim Hogan	0.660	0.544	0.380	0.495	0.681	0.569	0.393	0.467
Governor Primary 2014	Wendy Davis	0.957	0.728	0.706	0.977	0.961	0.756	0.705	0.967
RR Comm. Primary 2014	Steve Brown	0.650	0.599	0.561	0.638	0.668	0.612	0.560	0.611
U.S. Senate Primary 2014	David Alameel	0.460	0.599	0.346	0.552	0.463	0.609	0.357	0.642
U.S. Senate Runoff 2014	David Alameel	0.666	0.760	0.694	0.903	0.662	0.774	0.704	0.881
President Primary 2016	Hillary Clinton	0.861	0.661	0.442	0.505	0.878	0.665	0.490	0.572
RR Comm. Primary 2016	Grady Yarbrough	0.452	0.363	0.240	0.294	0.480	0.378	0.246	0.314
RR Comm. Runoff 2016	Grady Yarbrough	0.698	0.485	0.473	0.410	0.719	0.576	0.475	0.454
Comptroller Primary 2018	Tim Mahoney	0.552	0.583	0.366	0.357	0.545	0.577	0.357	0.427
Governor Runoff 2018	Lupe Valdez	0.438	0.741	0.498	0.439	0.488	0.718	0.500	0.416
Land Comm. Primary 2018	Miguel Suazo	0.515	0.784	0.758	0.735	0.525	0.773	0.749	0.625
Lt. Gov Primary 2018	Michael Cooper	0.620	0.525	0.519	0.258	0.655	0.556	0.530	0.313
RR Comm. Primary 2018	Chris Spellmon	0.611	0.307	0.376	0.372	0.616	0.346	0.388	0.437
U.S. Senate Primary 2018	Sema Hernandez	0.297	0.378	0.276	0.051	0.318	0.368	0.283	0.081
RR Comm. Runoff 2020	Roberto Alonzo	0.534	0.486	0.378	0.181	0.537	0.516	0.385	0.201
U.S. Senate Runoff 2020	Royce West	0.828	0.388	0.504	0.363	0.840	0.390	0.492	0.361

Table 37: SD 10 Comparison in Democratic Primary and Runoff Elections

Election	CoC	SD 17 in S2168				SD 17 in S2-ALT			
		B Est	H Est	A Est	O Est	B Est	H Est	A Est	O Est
U.S. Senate Primary 2012	Grady Yarbrough	0.269	0.307	0.171	0.254	0.321	0.311	0.164	0.271
U.S. Senate Runoff 2012	Grady Yarbrough	0.528	0.412	0.341	0.179	0.561	0.426	0.369	0.213
Ag. Comm Primary 2014	Jim Hogan	0.546	0.411	0.224	0.344	0.498	0.417	0.252	0.373
Ag. Comm Runoff 2014	Jim Hogan	0.633	0.532	0.360	0.440	0.654	0.526	0.378	0.457
Governor Primary 2014	Wendy Davis	0.932	0.760	0.765	0.937	0.950	0.737	0.783	0.913
RR Comm. Primary 2014	Steve Brown	0.686	0.647	0.594	0.657	0.772	0.651	0.596	0.649
U.S. Senate Primary 2014	David Alameel	0.360	0.565	0.387	0.630	0.457	0.526	0.365	0.562
U.S. Senate Runoff 2014	David Alameel	0.514	0.705	0.739	0.862	0.630	0.676	0.714	0.820
President Primary 2016	Hillary Clinton	0.884	0.685	0.525	0.623	0.878	0.676	0.532	0.590
RR Comm. Primary 2016	Grady Yarbrough	0.518	0.407	0.253	0.342	0.551	0.408	0.248	0.357
RR Comm. Runoff 2016	Grady Yarbrough	0.727	0.518	0.443	0.350	0.748	0.541	0.473	0.411
Comptroller Primary 2018	Tim Mahoney	0.514	0.573	0.365	0.373	0.524	0.575	0.361	0.375
Governor Runoff 2018	Andrew White	0.712	0.472	0.605	0.734	0.702	0.405	0.571	0.647
Land Comm. Primary 2018	Miguel Suazo	0.515	0.753	0.770	0.650	0.546	0.756	0.777	0.633
Lt. Gov Primary 2018	Michael Cooper	0.660	0.547	0.542	0.267	0.694	0.557	0.531	0.272
RR Comm. Primary 2018	Chris Spellmon	0.590	0.338	0.366	0.386	0.590	0.353	0.356	0.426
U.S. Senate Primary 2018	Sema Hernandez	0.265	0.340	0.283	0.078	0.295	0.364	0.290	0.092
RR Comm. Runoff 2020	Roberto Alonzo	0.539	0.509	0.377	0.203	0.510	0.499	0.378	0.193
U.S. Senate Runoff 2020	Royce West	0.770	0.356	0.468	0.326	0.761	0.367	0.460	0.326

Table 38: SD 17 Comparison in Democratic Primary and Runoff Elections

Election	CoC	HD 29 in H2316				HD 29 in H1-ALT			
		B Est	H Est	A Est	O Est	B Est	H Est	A Est	O Est
U.S. Senate Primary 2012	Paul Sadler	0.363	0.363	0.241	0.658	0.401	0.365	0.229	0.664
U.S. Senate Runoff 2012	Paul Sadler	0.570	0.646	0.567	0.885	0.574	0.641	0.571	0.893
Ag. Comm Primary 2014	Jim Hogan	0.514	0.414	0.227	0.436	0.491	0.389	0.222	0.434
Ag. Comm Runoff 2014	Jim Hogan	0.653	0.557	0.393	0.516	0.657	0.525	0.377	0.535
Governor Primary 2014	Wendy Davis	0.921	0.816	0.703	0.948	0.920	0.812	0.689	0.954
RR Comm. Primary 2014	Steve Brown	0.672	0.636	0.571	0.604	0.665	0.595	0.562	0.590
U.S. Senate Primary 2014	David Alameel	0.342	0.477	0.335	0.451	0.334	0.431	0.335	0.418
U.S. Senate Runoff 2014	David Alameel	0.646	0.729	0.667	0.832	0.673	0.736	0.665	0.870
President Primary 2016	Hillary Clinton	0.880	0.719	0.473	0.651	0.878	0.664	0.472	0.620
RR Comm. Primary 2016	Grady Yarbrough	0.546	0.465	0.267	0.487	0.545	0.443	0.255	0.488
RR Comm. Runoff 2016	Cody Garrett	0.339	0.509	0.561	0.523	0.297	0.398	0.505	0.406
Comptroller Primary 2018	Joi Chevalier	0.439	0.374	0.645	0.483	0.443	0.415	0.653	0.501
Governor Runoff 2018	Andrew White	0.589	0.470	0.539	0.647	0.530	0.401	0.515	0.616
Land Comm. Primary 2018	Miguel Suazo	0.493	0.739	0.741	0.568	0.492	0.737	0.723	0.572
Lt. Gov Primary 2018	Michael Cooper	0.650	0.503	0.496	0.285	0.679	0.539	0.523	0.301
RR Comm. Primary 2018	Roman McAllen	0.416	0.658	0.623	0.521	0.425	0.629	0.613	0.500
U.S. Senate Primary 2018	Beto O'Rourke	0.238	0.416	0.559	0.678	0.233	0.478	0.560	0.674
RR Comm. Runoff 2020	Chrysta Castaneda	0.444	0.475	0.619	0.754	0.500	0.517	0.640	0.825
U.S. Senate Primary 2020	Cristina Ramirez	0.081	0.438	0.192	0.109	0.048	0.365	0.163	0.098
U.S. Senate Runoff 2020	Royce West	0.788	0.369	0.451	0.365	0.835	0.394	0.490	0.368

Table 39: HD 29 Comparison in Democratic Primary and Runoff Elections

Election	CoC	HD 65 in H2316				HD 65 in H3-ALT			
		B Est	H Est	A Est	O Est	B Est	H Est	A Est	O Est
U.S. Senate Primary 2012	Paul Sadler	0.266	0.297	0.228	0.532	0.320	0.285	0.227	0.599
U.S. Senate Runoff 2012	Paul Sadler	0.558	0.604	0.581	0.879	0.603	0.566	0.602	0.853
Ag. Comm Primary 2014	Richard Friedman	0.238	0.448	0.247	0.347	0.293	0.470	0.257	0.354
Ag. Comm Runoff 2014	Richard Friedman	0.349	0.507	0.590	0.474	0.455	0.529	0.621	0.532
Governor Primary 2014	Wendy Davis	0.918	0.456	0.751	0.936	0.928	0.446	0.765	0.962
RR Comm. Primary 2014	Steve Brown	0.707	0.473	0.582	0.658	0.700	0.494	0.569	0.646
U.S. Senate Primary 2014	Kesha Rogers	0.588	0.278	0.343	0.229	0.517	0.255	0.341	0.184
U.S. Senate Runoff 2014	David Alameel	0.461	0.704	0.662	0.791	0.592	0.720	0.659	0.828
President Primary 2016	Bernie Sanders	0.192	0.293	0.636	0.573	0.220	0.294	0.611	0.530
RR Comm. Primary 2016	Cody Garrett	0.359	0.459	0.392	0.367	0.373	0.444	0.380	0.375
RR Comm. Runoff 2016	Grady Yarbrough	0.653	0.308	0.533	0.485	0.661	0.309	0.508	0.557
Comptroller Primary 2018	Joi Chevalier	0.385	0.271	0.631	0.507	0.461	0.278	0.632	0.519
Governor Runoff 2018	Lupe Valdez	0.467	0.785	0.482	0.415	0.447	0.804	0.483	0.379
Land Comm. Primary 2018	Miguel Suazo	0.471	0.813	0.742	0.614	0.509	0.817	0.758	0.582
Lt. Gov Primary 2018	Michael Cooper	0.680	0.533	0.522	0.286	0.637	0.545	0.509	0.239
RR Comm. Primary 2018	Roman McAllen	0.378	0.615	0.596	0.471	0.387	0.654	0.588	0.485
U.S. Senate Primary 2018	Beto O'Rourke	0.222	0.463	0.643	0.819	0.306	0.392	0.698	0.880
RR Comm. Runoff 2020	Chrysta Castaneda	0.488	0.429	0.662	0.799	0.569	0.422	0.741	0.856
U.S. Senate Primary 2020	Royce West	0.562	0.043	0.171	0.183	0.486	0.044	0.164	0.123
U.S. Senate Runoff 2020	Royce West	0.767	0.339	0.448	0.284	0.728	0.343	0.402	0.244

Table 40: HD 65 Comparison in Democratic Primary and Runoff Elections

Election	CoC	HD 83 in H2316				HD 83 in H4-ALT			
		B Est	H Est	A Est	O Est	B Est	H Est	A Est	O Est
U.S. Senate Primary 2012	Paul Sadler	0.279	0.325	0.248	0.479	0.274	0.291	0.247	0.479
U.S. Senate Runoff 2012	Paul Sadler	0.551	0.550	0.611	0.816	0.535	0.533	0.649	0.791
Ag. Comm Primary 2014	Jim Hogan	0.483	0.426	0.249	0.402	0.488	0.408	0.252	0.403
Ag. Comm Runoff 2014	Jim Hogan	0.570	0.561	0.352	0.461	0.566	0.494	0.340	0.468
Governor Primary 2014	Wendy Davis	0.901	0.675	0.734	0.929	0.902	0.608	0.776	0.891
RR Comm. Primary 2014	Steve Brown	0.612	0.632	0.548	0.633	0.618	0.646	0.594	0.631
U.S. Senate Primary 2014	Maxey Scherr	0.193	0.264	0.322	0.225	0.146	0.216	0.287	0.243
U.S. Senate Runoff 2014	David Alameel	0.523	0.654	0.699	0.747	0.588	0.651	0.729	0.691
President Primary 2016	Hillary Clinton	0.829	0.658	0.489	0.547	0.796	0.687	0.544	0.542
RR Comm. Primary 2016	Cody Garrett	0.369	0.452	0.365	0.300	0.293	0.455	0.376	0.292
RR Comm. Runoff 2016	Grady Yarbrough	0.696	0.476	0.501	0.507	0.645	0.470	0.469	0.483
Comptroller Primary 2018	Tim Mahoney	0.532	0.597	0.325	0.328	0.534	0.634	0.328	0.390
Governor Runoff 2018	Lupe Valdez	0.473	0.711	0.518	0.494	0.458	0.711	0.515	0.492
Land Comm. Primary 2018	Miguel Suazo	0.493	0.772	0.749	0.649	0.525	0.746	0.775	0.634
Lt. Gov Primary 2018	Mike Collier	0.371	0.515	0.506	0.777	0.354	0.521	0.522	0.745
RR Comm. Primary 2018	Roman McAllen	0.387	0.650	0.634	0.571	0.404	0.666	0.654	0.569
U.S. Senate Primary 2018	Sema Hernandez	0.375	0.478	0.321	0.095	0.345	0.435	0.280	0.089
RR Comm. Runoff 2020	Chrysta Castaneda	0.463	0.465	0.584	0.810	0.451	0.468	0.612	0.797
U.S. Senate Primary 2020	Annie Garcia	0.112	0.373	0.169	0.092	0.105	0.352	0.150	0.089
U.S. Senate Runoff 2020	Royce West	0.782	0.382	0.496	0.297	0.764	0.331	0.487	0.312


Table 41: HD 83 Comparison in Democratic Primary and Runoff Elections

Election	CoC	HD 94 in H2316				HD 94 in H5-ALT			
		B Est	H Est	A Est	O Est	B Est	H Est	A Est	O Est
U.S. Senate Runoff 2012	Paul Sadler	0.507	0.656	0.587	0.854	0.487	0.667	0.602	0.868
Ag. Comm Primary 2014	Jim Hogan	0.511	0.402	0.229	0.354	0.513	0.392	0.223	0.324
Ag. Comm Runoff 2014	Jim Hogan	0.660	0.556	0.394	0.477	0.709	0.569	0.398	0.487
Governor Primary 2014	Wendy Davis	0.958	0.743	0.718	0.965	0.964	0.729	0.693	0.965
RR Comm. Primary 2014	Steve Brown	0.658	0.599	0.555	0.595	0.660	0.623	0.564	0.625
U.S. Senate Primary 2014	David Alameel	0.436	0.593	0.345	0.614	0.490	0.593	0.358	0.648
U.S. Senate Runoff 2014	David Alameel	0.601	0.761	0.691	0.860	0.636	0.751	0.695	0.881
President Primary 2016	Hillary Clinton	0.859	0.662	0.510	0.559	0.891	0.667	0.492	0.600
RR Comm. Primary 2016	Grady Yarbrough	0.494	0.373	0.260	0.318	0.473	0.390	0.243	0.332
RR Comm. Runoff 2016	Grady Yarbrough	0.724	0.559	0.494	0.500	0.757	0.575	0.489	0.477
Comptroller Primary 2018	Tim Mahoney	0.503	0.593	0.353	0.443	0.523	0.584	0.379	0.423
Governor Runoff 2018	Lupe Valdez	0.326	0.672	0.480	0.449	0.431	0.618	0.454	0.328
Land Comm. Primary 2018	Miguel Suazo	0.538	0.792	0.734	0.629	0.521	0.761	0.738	0.654
Lt. Gov Primary 2018	Michael Cooper	0.636	0.556	0.520	0.353	0.655	0.525	0.545	0.295
RR Comm. Primary 2018	Chris Spellmon	0.582	0.313	0.381	0.444	0.610	0.325	0.388	0.401
U.S. Senate Primary 2018	Sema Hernandez	0.260	0.366	0.267	0.101	0.327	0.338	0.285	0.080
RR Comm. Runoff 2020	Roberto Alonzo	0.508	0.493	0.380	0.216	0.540	0.491	0.388	0.191
U.S. Senate Runoff 2020	Royce West	0.798	0.349	0.469	0.336	0.822	0.369	0.491	0.338

Table 42: HD 94 Comparison in Democratic Primary and Runoff Elections

I reserve the right to continue to supplement my report in light of additional facts, testimony and/or materials that may come to light. Pursuant to 28 U.S.C. 1746, I declare under penalty of perjury of the laws of the United States that the foregoing is true and correct according to the best of my knowledge, information, and belief.

Executed this 20th day of June, 2022.



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Dr. Moon Duchin